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ANNOUNCEMENT.

The primary purpose of THE CANAL RECORD, is the publication of accurate information, based upon official records, concerning all branches of the work of Canal construction. So far as practicable, the progress made week by week, month by month, and year by year will be shown in comparative tables of statistics. In addition there will be published such information in regard to the social life of the Zone, its amusements, sports and other activities, as is thought to be of general interest. Space will also be given to letters from employees relating to any topic upon which they may choose to write, subject only to the restrictions that such communications must be couched in respectful language and must be signed in each instance with the name and address of the writer.

NOTES OF PROGRESS.

Lock and Dam Works at Gatun.

The work on the locks and dams has taken such shape that it is now possible to see something of their form. It is believed that the actual masonry work can be commenced at the Gatun Locks within eighteen months. Four steam shovels are now digging out the site for the locks, and construction can be begun after the excavation for the top lock of the flight is completed. Two steam shovels are preparing the site for the erection of the spillway works of the Gatun dam. Railroad trestles are being erected across the line that will mark the inside and outside boundaries of the big dam, and from one of these, dirt trains are now dumping dirt upon the site of the dam. Preparatory to the installation of pipeline dredges, by which more rapid work on the dam will be possible, the Chagres river has been diverted from its main channel and dammed. The pipe-line dredges should be installed by the first of January, when the work at Gatun will be as actively in progress as that at Culebra. Suitable sand and rock for the big masonry locks have been located, and, what is equally interesting to the engineers, material for the manufacture of all the necessary cement has been located on the Isthmus. It is hoped, however, that cement can be secured for such a price in the United States as to make it more advisable to procure the needed supply there instead of manufacturing it on the Isthmus.

The general features, design and details of the Gatun and other locks have been worked out, together with the general type and number of lock gates to be used. The survey of all the country to be converted into the great Gatun lake has been completed, and the finished reports show that the area will be 171 square miles.

The Reorganization in Culebra Cut.

With the approval of the Chairman and of the Commissioner in charge of all the excavation, the ten miles of the Culebra Division was reorganized on the first of July last in accordance with a plan presented by Mr. L. K. Rourke, after discussion with Mr. Bolich. This created four divisions, each of which is about two and a half miles in extent, and is under the direction of a local superintendent. Mr. George A. Greenslade has been assigned to the district north of Matachin, which is now officially referred to as the Tabernilla District. Mr. Dan E. Crowley has charge of all the work between Stations 1600 and 1720, designated the Empire District. Mr. Joseph Little is responsible for what is known as the Culebra District, extending from Stations 1720 to 1840. The Pedro Miguel District, running south from Station 1840 to La Boca, is in charge of Mr. D. B. Brown. Between Matachin and Bas Obispo Mr. Fred L. Hartigan is in charge of what is known as the Bas Obispo District. Within their respective territories these local superintendents are held responsible for everything that is done therein. They report direct to the Assistant Division Engineer, Mr. Rourke, who in turn reports to Mr. Bolich, the Division Engineer, to whom the Commissioner in charge of all excavation looks for results from the Culebra Cut. Within each subdivision promotion among the foremen, so far as practicable, is, according to seniority and efficiency, as determined by actual results. The effect of this concentration of authority is shown in the records made so far during the rainy season which have been second only to the best accomplished before the rains set in. It has been estimated that about 52,000,000 cubic yards would have to be removed from the Culebra Cut to complete the canal authorized by Congress. Of this amount there has been removed at least 8,500,000 cubic yards. About 4,775,000 cubic yards of this have been removed during the seven months of this year, and the total for the year is likely to reach 10,000,000 cubic yards.

Club House Libraries.

The libraries which were purchased by the Commission under direction of the Secretary of War for the four new Recreation Buildings have arrived and will be placed in the reading rooms as soon as proper provision for their care can be made. The books, of which there are about 600 for each library, were purchased in the States by a representative of the Commission, who was aided in their selection by officers of the National Y. M. C. A.; who have had large experience in work of this kind. The standard reference books, and the works on history, travel, science, philosophy and religion are the same in all four libraries, but the fiction is different in each case, the purpose being to change it about from one library to another from time to time, in order to make the whole body of it accessible to all sections of the Zone.

Nine and a Half Millions in Supplies.

The total value of all the supplies that have been received down to date by the Division of Material and Supplies aggregates nine and a half million dollars. Mr. Tubby, the Chief of the Division, reports that of this amount over 90 per cent. covers purchases made in the United States. During the last fiscal year the average monthly disbursements of the Division amounted to $750,000.

NOTES OF PROGRESS.

(continued)

Quinine and Sickness.

There was less quinine dispensed by the Medical Department on the Canal Zone during the month of July last, than during any previous month of the present year. In January the total issue amounted to 312.29 pounds avoirdupois. During February and March last the issues dropped to 38.88 and to 76.78 pounds, respectively. Last May the amount had to be increased to 452.15 pounds. In July the total quantity administered amounted to only 33.15 pounds, although the number of laborers was 10,000 greater than in July, 1906. The sick rate per thousand was 28 in July 1907, and in July, 1906, it was 39 per thousand. The death rate for July, 1907, was 16 per thousand among the white employees, and in July, 1906, it was 30 per thousand. In July, 1906, the death rate among the negroes was 72 per thousand as against 42 per thousand this year; and in the total force of Canal employees on the rolls, in July, 1906, it was 64 per thousand as against 35 per thousand in July, 1907.

Colon, during July, 1906, had a death rate of 77 per thousand. During July, 1907, this fell to 43 per thousand. On the Canal Zone the death rate for the entire native population was 76 per thousand in July, 1906, and only 34 per thousand in July, 1907.

Movement and Repair of Trains.

In the shops the amount of work necessary to keep the railroad and excavating machinery capable of doing as much in the rainy season as in the dry is very great. An item in the annual report of the Panama Railroad shows the increased activity of the rolling stock that must be cared for by the Mechanical Departments of the Commission and of the Railroad. In June, 1906, the railroad handled 994 trains on its own account and 2,628 on account of Canal construction. During June, 1907, the commercial and strictly Panama Railroad trains numbered 1,284 while those handled for the construction of the Canal amounted to 3,874. The increase in the number of trains moving on the Isthmus, indicated by these figures, has been such that there have been times during the present rainy season when the number of trains passing a given point on a single day has been as many 196. The work by which the Mechanical Department contributes to this activity can be understood when it is remembered that the majority of the cars and engines in service are daily subjected to the wear and tear of being loaded by steam shovels, which, in a desire to increase their record for a big day's work, not infrequently drop on a car a single rock weighing as much as 21,000 pounds. At the dumping grounds the mechanical methods for quickly discharging such loads impose an additional wear and tear on the cars. The annual reports from the Mechanical Departments show that during the past year, at the Gorgona shops, 1,179 locomotives and over 9,156 cars were repaired; that in the Empire shops, which are now in progress of rebuilding, 916 locomotives and over 717 cars were similarly attended to; and the Paraiso shops, of which even the general public on the Isthmus hear comparatively little, made "running repairs" to 4,110 locomotives and to 14,296 cars of all kinds.

New Zone Highways.

New trails completed on the Canal Zone since the first of December last have an aggregate length of over 37 miles. Mr. Campen, Superintendent of Public Works, placed his assistants, Linn M. Huntington and Francis P. Maehler in charge of the construction of these highways and the men under their direction have now cleared, graded and ditched a seven-mile trail from the city of Panama into the interior; a five-mile trail from Pedro Miguel to Araijan; a trail from Empire to La Chorrera and a trail from the old town of Cruces to Bas Obispo. Between Culebra and Empire there is now a macadamized road. From Empire, one of the new trails passes through Bas Obispo and Matachin to Gorgona, and with the road makes a continuous highway for the eight miles between Culebra and Gorgona. In the vicinity of Ancon several needed short trails have been constructed so as to connect the main trails leading into the interior. On the Colon side of the Zone, one of the new trails connects with the new road from Colon to Mount Hope and makes easy of access three miles of the interior of the district of Cristobal.

Building Department Work.

The annual report of the Building Department shows that during the past year 253 new buildins have been erected for white employees and 335 new buildings for the use of laborers. Eighteen new mess halls, four club houses, two lodge halls, and four school houses were also finished and turned over for the benefit of the employees. Ten new fire station houses, a church, a large office building, four post offices and three fumigation houses have also been completed. The Commission buildings reported as completed at Gatun on July 1, 1906, numbered 5, and at Culebra 147. Mr. Belding, the Master Builder, now reports the completion during the year ending July 1, 1907, of 92 new buildings at Gatun and 67 at Culebra.

Commission Club Houses.

The total membership of the four Commission Club Houses at Culebra, Empire, Gorgona, and Cristobal is more than sixteen hundred, and applications are still being filed each day. All classes of white men are largely represented. The Culebra Club membership numbers 360, which is the smallest enrollment of the four and is due to the fact that Culebra now has a smaller population than any of the other three towns. Over 50 per cent. of all men in Culebra eligible to membership have joined the club.

The four clubs have formed an Isthmian Bowling League, with regular games scheduled each week. Trophies will be given to winning teams and to individuals making the highest scores. Similar tournaments are being played by those interested in chess and checkers. Local tournaments of billiards and pool are now being held preliminary to selecting teams for an Isthmian League. The keen interest in these games, together with the reading rooms, lectures and entertainments of various character, gymnasium classes and refreshment booths are so attractive that the club houses are filled every night with men. The demand for gymnasium classes and games has become so general that it is necessary to use the entertainment hall certain evenings of the week for these purposes. Basket ball equipment has just been added.

The demand for educational classes is greater than present space and equipment have been able to meet. The public entertainments brought from the United States have proved very popular and will be continued as steadily as possible. The next series of entertainments will be furnished by Sidney Landon, character delineator, who is expected to arrive by the steamer "Dunottar Castle."

Colonizing European Laborers.

The Division of Labor, Quarters and Subsistence has under consideration a plan by which European laborers on the Isthmus may bring their families here. The plan contemplates the erection of cheap houses upon small tracts of land, establishing settlements in close proximity to the work along the Line. The colonization of these people, it is thought, would give a steady and permanent supply of the best labor available for the Canal work, and would result in clearing and improving a good portion of the land belonging to the Commission within the Zone.

The steam shovels in service on the Isthmus, July 1, 1907, were 63, of which 3 are 45-tons shovels, 28 are 70-ton shovels, and 32 are 95-ton shovels.

COMMISSION MECHANICAL PLANTS.

Location, Equipment, Force, and Description of Work.

The Mechanical Division commenced the fiscal year with shops at Cristobal, Gorgona, Empire and Paraiso; engine houses at Lyrio and Cucuracha; air compressor plants at Rio Grande and Empire.

During the year work was commenced on entirely new shop plants at Empire and Paraiso, the old plants having been continued in service practically as left by the French, but wholly inadequate to the demands, and impossible of alteration to meet future needs.

The plant at Empire employing 628 men, is especially designed for the maintenance and repair of steam shovels and steel dump cars; and that at Paraiso, for light repairs only, of practically all of the equipment at the south end of the Cut. When completed all of these plants will be equipped with machinery that the most modern practice has shown to be the best obtainable. The Empire plant is to be operated by a series of electric motors.

Owing to the opening up of new centers of works and the desirability of being able to take care of the running repairs of rolling stock in close proximity to its work, limited facilities for handling equipment and making running repairs are being provided at Pedro Miguel, at Rio Grande (to replace the old Cucuracha engine house), at Tabernilla, and, in the near future, similar facilities will have to be provided at Gatun and La Boca.

GORGONA SHOPS.

(Until the 24th of December, 1906, these shops were known as Bas Matachin Shops.)

Under the French regimé they were, as now, the principal shops on the Isthmus. They consist of the following buildings, wherein 1,197 men are employed.

Foundry—120 by 70 feet, containing three cupolas, core ovens, and six brass furnaces, with all the necessary machinery and equipments for making 800,000 pounds of gray iron casting and 70,000 pounds of brass casting per month when operating to their full capacity. Despite the higher rates of wages prevailing here and the distance from market, these castings are produced at a cost which compares very favorably with the market prices of same in the States, that is 4 cents per pound for iron and 18 cents per pound for brass.

Adjacent to this building is a store house 30 by 60 feet for core material and moulding sand. Also a coke bin 130 by 50 feet under roof, and a pattern storage house 30 by 75 feet for the storing and preservation of patterns.

Planing Mill—60 by 120 feet fully equipped with wood working machinery and tools.

Boiler and Tin Shop—90 by 288 feet.

Erecting Shop—covering 22 locomotive pits, each division 70 by 22 feet. A transfer pit 50 by 176 with steam propelled transfer table 50 feet long. Between the erecting shop and the transfer pit is a platform 50 feet wide running the entire length of the erecting shop.

Machine Shop—90 by 180 feet, tool room 32 by 32 feet, iron rack 20 by 115 feet. Car repair shop, carpenter shop and pattern shop. These three shops are practically one, being contained in a building 130 by 325 feet, in which are three tracks running the entire length of the building, with a capacity of 32 cars.

In this same shop is also installed one 160-H. P. engine and one 100-K. W. generator—sufficient capacity to furnish all the lights needed at the shops and quarters, and for street lighting at Gorgona and Matachin.

Blacksmith Shop—60 by 325 feet.

Power Plant—50 by 50 feet containing a battery of six 200-horsepower boilers, from which steam pipes run to all of the other shop buildings where stationary engines are located.

Paint Shop—60 by 119½ feet opening upon a platform 30 by 70 feet.

Office Building—50 by 50 feet.

Instrument Repair Shop—30 by 40 feet equipped for repairing levels, transits, current meters, fluviographs, clocks, watches, and other instruments of precision.

Lavatories and Latrines—The shop is well equipped with lavatory and latrine facilities.

Empire Electric Light Plant—86 by 35 feet containing two 100-K.W. generators, direct connected to a 160-H. P. tandem compound ball engine, with a 200-K. W. generator and Harrisburg engine now being installed, furnishing, in addition to the power at the shops, current for lighting all quarters and streets at Empire and Culebra, with sufficient reserve capacity for the lighting needed at Las Cascadas roundhouse and Paraiso shops, as well as the various labor camps and settlements between these two points, which are seven miles apart.

Power Plant—42 by 141 feet containing a battery of twelve 200-horsepower boilers, to furnish steam for the operation of the air compressor plant (described under the head of these plants) and the electric light plant.

The Shop Yards are designed for adequate storage and handling room.

CRISTOBAL SHOPS.

The entire plant at Cristobal was, on November 15, 1906, turned over to the Panama Railroad Company for operation, under lease. It consists of the following:

Machine Shop—91 by 116 feet.

Blacksmith Shop—43 by 118 feet.

Boiler Shop—70 by 116 feet.

Planing Mill.—60 by 180 feet.

Power House—30 by 30 feet equipped with 4 boilers of 125 horsepower.

Car Shop—100 by 400 feet through which run five tracks with a capacity of fifty cars.

Office Building—40 by 66 feet.

A Round House of twenty stalls for handling locomotives.

Erecting Shop—75 by 200 feet containing nine pits.

Transfer Pits—60 by 200 with a 60-foot transfer table operated by steam.

Between the erecting shop and the transfer pit is a "platform" 50 feet wide running the entire length.

Coal Chute—on which cars loaded with coal are elevated by steam winch and cable, and dumped into 20 pockets for delivery to locomotives. This building also contains appliancies for drying and delivering sand to locomotives.

The plant is provided with the necessary cinder pits, store houses, oil houses, etc., and fully equipped with the necessary machinery and tools for the mechanical features of the Panama Railroad work. The shops also handle the repairs to marine equipment of the Panama Railroad and Steamship Company.

PARAISO SHOPS.

These shops consist of:

Machine Shop—60 by 160 feet.

Blacksmith and Boiler Shop—85 by 160 feet.

Office Building—20 by 50 feet.

Erecting Shop—75 by 150 feet containing 6 pits of such construction as to be suitable for both locomotive and steam shovel repairs.

Latrine and Lavatory—30 by 60 feet.

Iron Rack—20 by 60 feet.

Carpenter Shop—32 by 60 feet.

There is also being erected for the Division of Material and Supplies a storehouse 30 by 140 feet with ample platform space.

Three hundred and eighty-seven men make the working force in these shops.

LAS CASCADAS ENGINE HOUSE.

This consists of a rectangular building 90 by 300 feet containing 5 tracks with a total capacity of storing 40 engines, with the necessary cinder pits and a small repair shop and machinery to handle the running repairs of the locomotives cared for there.

MECHANICAL PLANTS.

(*continued*)

LAS CASCADAS COAL CHUTE.

At Las Cascadas is located a coal chute, on which cars loaded with coal are elevated by compressed air from the air pipe line, and dumped into twenty pockets for delivery to locomotives. This building also contains appliances for drying and delivering sand to locomotives.

LYRIO ENGINE HOUSE.

This is a small building 121 by 26 with a capacity of 10 engines. This building is new, as the old one (erected by the French) was torn down on account of being in the line of excavation. The plant is designed for taking care at night of the engine working on the side of the Cut opposite Culebra.

RIO GRANDE ENGINE HOUSE.

A new engine house is being built, 54 by 180 feet with a capacity of nine locomotives.

PEDRO MIGUEL COAL CHUTE.

At Pedro Miguel is located a coal chute, on which cars loaded with coal are elevated by compressed air from the air pipe line, dumped into twenty pockets for delivery to locomotives. This building also contains appliances for drying and delivering sand to locomotives.

AIR COMPRESSOR PLANTS.

For the purpose of furnishing compressed air to operate rock drills, stone crushers, etc., there have been constructed three plants, connected by 9½ miles of 10-inch pipe line mains, extending from Bas Obispo to Pedro Miguel, with 6-inch and 4-inch leads running into the canal prism for the various purposes. These plants operated by 91 men contained on June 30th an aggregate of 12 air compressors, each with a capacity of 2,500 cubic feet of air per minute, at 100 pounds pressure, all feeding into the one line. These plants also supply air for operating the coal chutes at Pedro Miguel and Las Cascadas, as well as the necessary use of compressed air at Empire and Paraiso shops.

The completion of the Empire shop plant will necessitate the addition of approximately 250 first grade skilled mechanics, and the necessary helpers for same, to properly man the plant.

Deaths from tropical diseases, including employees and civil population, on the Isthmus, during the month of July, are reported by Colonel Gorgas as follows:

Beri-beri	1
Dysentery	9
Malaria	44
Total	54
Death from all other causes	303
Total deaths	357

FRENCH AND AMERICAN RECORDS.

Highest elevation on new center line of Canal before excavation began by the French:	FEET
At Culebra	312
At Bas Obispo	233
Greatest depth of excavation by the French:	
On I. C. C. Canal axis at Culebra	161
On I. C. C. Canal axis at Bas Obispo	148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-foot level canal:	
At Culebra—at same point as above	111
At barrier on Contractor's Hill about	140
At Bas Obispo	45
Amount excavated under American control:	CUBIC YARDS
In Culebra Cut (canal prism) to April 1, 1907	5,750,000
Total excavation by the French at all points and including diversion channel about	70,600,006
Total estimated excavation required April 1, 1907, for an 85-foot level canal:	
In canal prism	101,050,000
On lock sites	7,965,000
For regulating works and diversion channel	2,150,000
Dredging in old Canal, Cristobal to Gatun, to open construction channel, and at Panama, to keep channel open to La Boca	3,350,000
Total	114,515,000

EXCAVATION BY DREDGES

Monthly Totals since American Occupation at Colon.

CUBIC YARDS, PLACE MEASUREMENT

Months	1905		1906		1907	
	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism
January				90,700		111,100
February				105,500		110,002
March				126,650		84,145
April				87,200		69,889
May				64,875		133,847
June		60,700		73,500	17,000	107,118
July		58,050		69,000	* 104,322	5,600
August		53,183		54,000		
September		48,837		123,540		
October		48,800		111,020		
November		38,000		63,260		
December		92,250		58,400		
Totals		399,820		1,027,645		

Total to Aug. 1, 1907—2,170,488 cubic yards.

* On this division there was also removed from the prism 731 yards in the Mindi Hills by steam shovels.

Monthly Totals since American Occupation at La Boca.

CUBIC YARDS, PLACE MEASUREMENT

Months	1905		1906		1907	
	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism
January				95,940		94,710
February				95,940		93,480
March				116,820		92,319
April				110,700		104,855
May				112,340		122,157
June		50,676		62,697	64,352	67,228
July		41,533		98,400	108,338	
August		54,530		111,930		
September		114,308		105,780		
October		81,836		97,170		
November		71,176		92,988		
December		71,094		90,528		
Totals		485,153		1,191,233		

Total to Aug. 1, 1907—2,423,825 cubic yards.

RECORD OF EXCAVATION.

Monthly Totals Since American Occupation

IN CULEBRA CUT.

Steam Shovels.

MONTHS	1904 Cubic Yards	1905 Cubic Yards	1906 Cubic Yards	1907 Cubic Yards
January		70,650	120,990	566,750
February		75,200	168,410	638,644
March		132,840	239,178	815,270
April		126,749	213,177	879,527
May		75,935	194,645	690,365
June		76,905	207,760	624,586
July	31,599	78,570	157,093	770,570
August	35,056	49,210	244,844	
September	25,220	44,085	292,000	
October	19,695	52,940	325,835	
November	28,860	60,540	221,642	
December	42,935	70,630	278,197	
Total	183,365	914,254	2,663,771	4,985,712

Total, 1904	183,365 cubic yards
Total, 1905	914,254 cubic yards
Total, 1906	2,663,771 cubic yards
Total, 1907 (seven months only)	4,985,712 cubic yards
Grand total to Aug. 1, 1907	8,747,102 cubic yards

AT GATUN AND LA BOCA

Steam Shovels.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1906		1907	
	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside of Canal Prism
January			47,539	
February			70,177	
March			100,151	
April			103,459	
May			70,528	
June			71,181	3,832
July			59,537	14,628
August				
September				
October	3,055			
November	11,517			
December	12,056			
Totals	26,628		522,572	18,460

LA BOCA LOCKS, DAMS AND SPILLWAYS.

Months	1906 From Canal Prism	1906 Outside of Canal Prism	1907 From Canal Prism	1907 Outside of Canal Prism
January				
February				
March				
April			538	3,367
May				1,756
June				762
July				4,907
August				9,047
September				
October				
November				
December				
Totals			538	19,839

SPORTS AND GAMES.

Baseball.

J. P. Avis, of the Chairman's office, announces that the "All-Kentuckians" have organized a team, accepted the challenge, and are anxious to try conclusions with the Georgia men.

A team has been organized at Culebra, composed entirely of players from the state of Georgia. They are open for challenges from any baseball club consisting of members from any one state in the Union and would like to get a game at an early date. Challenges should be addressed to W. S. Halstead, care Chief Engineer's office, Culebra, Canal Zone. The men from Georgia line up as follows: Brown, catcher; Arnell, pitcher; Roberts, first base; J. B. Huff, second base; Gamble, third base; Fleishman, short stop; Shannon, right field; Halstead, center field; P. Huff, left field.

The first game of baseball of the championship series took place at Empire, August 27, between the I. C. C. and Empire clubs. The following is the summary:

EMPIRE.

	A.B.	R.	H.	P.O.	A.	E.
Erile	2	0	1	1	1	2
McCusty (5th)	2	0	0	0	1	1
Gazzonni	4	0	0	1	2	1
Fluharty	4	0	1	4	2	0
Spreeken	3	0	0	0	0	0
Murphy	3	0	0	4	1	0
Toone	3	0	1	3	0	0
Fussner	3	0	0	6	0	3
Craddock	3	0	0	3	2	1
Henry	3	0	0	2	1	0
	30	0	3	24	10	8

I. C. C.

	A.B.	R.	H.	P.O.	A.	E.
Bryan	4	2	0	0	2	1
Huff, P.	4	1	2	1	0	0
Bell	4	1	0	8	1	0
Christopher	4	0	0	2	1	0
Gamble	4	0	0	3	3	0
Avis	4	0	1	0	0	0
Yingling	4	1	1	4	3	0
Huff	2	0	0	0	0	0
South (6th)	2	1	2	0	0	0
Sorrell	4	0	0	9	1	0
	36	6	6	27	11	1

Innings.	1	2	3	4	5	6	7	8	9	
I. C. C.	0	0	1	0	3	2	0	0	x—	6
Empire	0	0	0	0	0	0	0	0	0—	0

Two-base hits—Huff, P.; South. Double plays—Toone, Fluharty, Craddock; Christopher, Bell, Yingling; Sorrell, Yingling; Yingling, Bell. Stolen bases—I. C. C., 8; Empire, 5. Errors—I. C. C., 1; Empire, 8. Base hits—Off Sorrell, 3; off Henry, 6. Strike outs—Sorrell, 8; Henry, 2. Base on balls—By Sorrell, 3; by Henry, 2. Hit by pitcher—By Henry, 2. Umpire—Dr. Summersgill. Scorer—Manley. Time of game—Two hours and fifteen minutes.

Chess and Checkers.

There are several chess, checkers, and billiard tournaments in progress at the Empire and the Culebra clubs, where the results will be known in in time for publication in the issue of September 11th.

Bowling.

Team.	Played.	Won.	Lost.	Per cent.
Cristobal	9	7	2	.777
Empire	9	5	4	.555
Gorgona	9	5	4	.555
Culebra	9	1	8	.111

COMMISSION DECISIONS.

Final Pay in the United States.

Employes who resign while in the United States, may now with the approval of the Chairman of the Commission, be paid for leave with pay granted them, less one week, without being required to return to the Isthmus, provided they shall have completed at least two years service at the expiration of such leave.

New Furniture Allowance.

On August 15th the Commission adopted a resolution providing that the allowance of furniture for families of employes receiving less than $400.00 per month, be fixed as follows:

1 Range
1 Double bed
2 Pillows
2 Kitchen chairs
6 Dining chairs
1 Chiffonier
2 Center tables
1 Mosquito bar
1 Refrigerator
1 Double mattress
1 Kitchen table
1 Dining table
1 Sideboard
1 Dresser
1 Bedroom mat
3 Wicker rockers

That for employes receiving $400.00 per month, or over, the following additional articles be authorized and that same come up to specifications laid down for the former "C" class of furniture.

3 Dining chairs
1 Chiffonier
1 Towel racks
1 Parlor desk
2 Parlor chairs
1 Porch swing
1 Serving table
1 Dresser
1 Bedroom mat
1 Parlor wicker rocker
1 Morris chair
1 Porch double seats

That the issue of beds, mattress and mosquito bars in excess of this allowance be authorized to families with children.

Two Assistant Secretaries of Club Houses, capable of conducting gymnastic exercises have been authorized at $125.00 per month.

Longevity Regulations.

The following regulations in regard to longevity increases in pay, which were made effective May 1, 1907, under the instructions of the Secretary of War, and with the approval of the President, were adopted at the meeting of the Isthmian Canal Commission on August 1st:

(a) All employees not natives to the tropics, who occupy the positions herein designated shall be granted the following increases in pay for length of continuous service on the Isthmus:

Five per cent of the basic or class rate for the second year, with a cumulative addition of three per cent, of the basic rate for each subsequent year; provided, however, that such cumulative increase shall not exceed a total of twenty-five per cent. of the basic rate.

(b) The positions to which these regulations apply are as follows:

Barge Engineers
Tug Engineers
Dredge Engineers
Launch Engineers
Yardmasters
Trainmen
Boilermakers
Car Repairers
Drill Runners
Hostlers
Masons
Millwrights
Patternmakers
Shipwrights
Well Drillers
Train Conductors
Blacksmiths
Carpenters
Cabinet Makers
Diamond Drill Setters
Iron Workers
Steam Shovel Engineers
SteamShovel Cranemen
Molders
Painters
Pipefitters
Tinsmiths
Wiremen
Captains of Steam Vessels
Bricklayers
Coppersmiths
Channelers
Firemen
Machinists
Motormen
Plasterers
Plumbers
Planing Mill Machine hands

(c) In the case of an employee transferred to the Commission from the Panama Railroad Company, his service on the Isthmus with the latter will be reckoned the same as service with the Commission.

(d) By "service" is meant all time on the Commission's roll in any class of employment, from the date of entering the Isthmian service to the date of termination of same.

(e) The class rate may be changed at any time if circumstances arise justifying such action.

Holiday Pay for Laborers.

The Chairman's Circular of May 20, 1907, providing that Effective June 1, pay of Grade A-1 laborers will be at the rate of 13⅓ cents silver per hour for ten hours, and time and one-half on 20 cents silver for time over 10 hours and on Sundays and holidays, has been modified as follows:

On January 1, February 22, May 30, July 4, Labor Day, Decoration Day, Thanksgiving Day and December 25, when laborers work on the day preceding and the day subsequent to holiday they should be allowed 9 hours gratuity time for holiday, and if besides being present (either for a whole day or a fractional part thereof) on these days they actually perform service on holiday they are entitled to their gratuity time plus actual straight time put in on holiday. Grade A-1 laborers to be paid this gratuity time and straight time at the rate of 20 cents per hour. If a laborer, Grade A-1, at 13⅓ cents, works on the holiday but does not work on the day preceding and the day following, his service on that holiday should be computed as straight time at the rate of 20 cents silver per hour.

All hourly employees not designated as laborers, who perform service of a higher class to receive 8 hours gratuity and time one-half for actual service. In this connection, see copy of the Chairman's circular of August 1, 1907, showing employees who should be considered as belonging to this class of laborers.

FINANCES OF THE CANAL.

Appropriations and Expenditures Down to the End of 1906.

Appropriations have been made "to continue the construction of the Isthmian Canal" exclusive of the $50,000,000.00 paid to the French Company and Panama Goverment, as follows:

June 28, 1902, the act limits the amount to be thereafter appropriated to the sum of $145,000,000, of which there is appropriated thereby	$10,000,000.00
December 21, 1905	11,000,000.00
February 27, 1906	5,990,786.00
June 30, 1906	25,456,415.08
March 4, 1907, for fiscal year beginning July 1, 1907, and ending June 30, 1908	27,161,367.50
	79,608,558.58

The amount of audited expenditures to December 31, 1906, is	84,449,000.32
Divided as follows:	
For canal property, right of way and franchises	50,000,000.00
For Panama Railroad stock owned	157,118.24
For material and supplies, including cost of purchase, handling and transportation thereof, and exclusive of material issued and charged againt the account representing the work in which employed	3,449,022.96
Expenditures for salaries, wages, traveling and contingent expenses, materials used:	
For general administration	1,124,226.55
For government and sanitation	4,381,089.80
For construction and engineering	9,729,554.98
For plant:	
Including rolling stock, excavating machinery, shop machinery and tools, second main track on Isthmus, buildings, Zone waterworks and sewers, etc.	12,138,852.17
Loans to the Panama Railroad Company	765,480.00
Advances to Panama Railroad Company	1,683,646.90
Individuals and companies:	
Representing expenditures for supplies and services furnished the Panama Railroad Company, and other interests engaged in allied work and for which collections have been or will be made, and the proceeds thereof deposited in the Treasury of the United States as miscellaneous receipts	1,020,008.72
Total	84,449,000.32

Dinner to Mr. Holcombe.

Fifty-nine Americans gave a dinner on Saturday, Aug. 31, at Hotel Tivoli, in honor of Mr. J. G. Holcombe the chief of the Division of Municipal Engineering. Mr. Holcombe sails for the States on his vacation on Sept. 4. His hosts included:

Wm. M. Acheson, J. A. Avery, W. I Baucus, C. W. Beattie, H. Bortin, J. W. Breadley, Louis Broome, B. W. Buzby, Bart. N. Carrick, R. G. Castel, Robert Coe, H. K. Cohen, Jacob Cohen, C. J. Coggan, Fred. T. Cretors, C. M. Cuvillier, Rafael Dominguez, John Filostrat, D. Foster, Frank D. Gilinat, I. Galindo, Jr., C. E. Guyant, H. G. Hanson, W. F. Heroy, W. W. Hinckley, Henry B. Howland, W. E. Kralee, E. J. Lewis, C. S. Leftwich, C. R. Logan, Stephen Latchford, Hiram McElroy, E. C. McFarland, Abraham Martinez, Jay Mertz, C. P. Mills, John W. Mullen, James Maguire, Wm. E. Maxon, W. A. Nitzer, C. P. Nolan, R. H. Pearson, Oscar C. Pickel, Robt. Potwin, John Rand, A. C. Rasmussen, Guy N. Rohrer, G. P. Strum, L. E. Shaeffer, C. D. Schlemmer, F. Schulze, R. M. Tebbes, W. A. Torbert, DeWitte C. Vance, Chas. T. Waring, W. D. Williams, Daniel E. Wright, A. E. Weis, Chas. W. Wolf, Jr.

NEW CONDITIONS OF EMPLOYMENT.

The new conditions of employment, adopted on June 11, 1907, at the 129th meeting of the Commission to be made effective July 1, 1907, provide that hereafter there shall be no distinction between employees on the gold rolls and those on the silver rolls; being on the gold rolls will not in the future confer any special privileges. The dividing line now is between laborers and those above the grade of laborers. Ordinary laborers are given two privileges which heretofore they have not received, one is thirty days' injury leave, the other is holiday pay.

Following is a comparative statement of the most important changes made by the new regulations:

OLD REGULATIONS. Effective April 1, 1907.	NEW REGULATIONS. Effective, July 1, 1907.
No application for married quarters will be received until an employee has been in the service on the Isthmus for six months.	Family quarters will be assigned when available, assignments to be made in accordance with date of application. Experience shows that about ten months elapse between application and assignment.
A former employee re-engaged for duty on the Isthmus will be paid compensation from the date of his re-entry into service on the Isthmus and be charged the Government rate of transportation.	A former employee from the United States who served less than one year if re-engaged for duty on the Isthmus will receive pay only from the date of his re-entry into service and be charged the Government rate of transportation.
Six weeks leave of absence with pay granted employees whose salaries are fixed on an annual basis if said leave is taken in the United States.	Six weeks leave of absence granted employees whose salaries are fixed on an annual basis with the statement that said leave is granted for the benefit of the Government in preserving the health of those employees not accustomed to work in a tropical country, and will be confined to such employees, and must be taken in a country affording the necessary change of climate.
Annual leave of absence is not to be cumulative for more than one year.	Annual leave is not to be cumulative except when an employee is prevented by the Government from taking leave when due.
All gold employees are granted sick leave with pay at the rate of fifteen days for each six months' service which leave shall not be cumulative and which shall be granted only when the employee has work 96 per cent. of the working days or hours, compensation for leave being payable after the expiration of the six months' service.	All regular employees above the grade of laborers unaccustomed to a tropical climate may be granted fifteen days sick leave for each six months of service. This leave may be cumulative to an amount not exceeding thirty days and payment for same shall be made the first pay period after the employee returns to duty.
Employees whose compensation is fixed on an hourly basis and who receive the wage of 50c. gold an hour or more are paid for holidays.	All hourly employees above the grade of laborer will be paid for holidays.
Employees not reporting for duty within ten days after the expiration of leave will forfeit right to pay for leave period.	Employees not reporting for duty within fifteen days after expiration of leave will forfeit right to pay for leave period.

ADDITIONS TO REGULATIONS.

The Commission reserves the right to pay in any money, the value or parity of which is guaranteed by the United States. Being on the gold roll will not in future confer any special privileges.

The Commission reserves the right to discharge an employee at any time for cause, and to terminate a provisional appointment when the exigencies of the service so require

All provisional appointments will, at the end of each leave period, be so modified as to make such appointments correspond to the then existing rules and regulation of the Commission.

All appointments made prior to this resolution are hereby terminated, to take effect at the end of the next leave period accruing under such appointment. Conditions of service thereafter will be in accord with the rules and regulations of the Commission.

The new regulations also provide that all laborers shall be paid for holidays and may be granted leave on account of injury incurred in the performance of duty not to exceed thirty days in any current year. In case of illness or injury laborers shall receive free medical attendance and care at the hospitals.

OMISSIONS FROM OLD REGULATIONS.

No application for married quarters will be received until an employee has been in the service on the Isthmus for six months.

An employee discharged on account of reduction of force may be granted six weeks leave of absence with pay and may be paid in the United States.

Work of the Commissary.

According to the most accurate figures obtainable the Commissary department is now feeding, clothing and otherwise supplying the material wants of more than 25,000 people. This includes the I. C. C. hotels, hospitals, messes and private families.

Besides the main Commissary at Cristobal, there are branch commissaries at Gatun, Tabernilla, Gorgona, Bas Obispo, Empire, Culebra, Rio Grande, Paraiso and Pedro Miguel. One is being built at Las Cascadas, one at La Boca and one at Ancon is contemplated.

A new price list of articles constantly carried in stock, filling a 62-page book, has just been issued.

The ice and cold storage plant at Cristobal is modern in every particular, but if the present rate of increase in business keeps up, it must be considerably enlarged. It has a capacity of 54 tons of ice per day, and is turning out 49 tons.

The Commissary's contract with Nelson Morris & Co. for all kinds of fresh meats is the largest of its kind in existence. The bakery has a capacity of 40,000 one-pound loaves per day, and is now turning out 15,000 daily.

Every morning a supply train of 15 cars leaves Cristobal for the Line, made up of five cars of ice and cold storage provisions, two cars of fresh bread, one car of vegetables, and seven cars of staple commissary supplies. The business of the Commissary shows a steady monthly increase. In July the value of coupon books sold was $10,000 more than in June.

The Commission printing plant turned out 24,000,000 pieces of printed matter during the last year.

Commissary Prices.

For the week ending August 24:

		Price cts.
FRESH MEATS.		
Mutton, entire forequarters, per lb....		10
Mutton, short-cut chops......	do	19
Mutton, leg........	do	17
Lamb, for stewing	do	11
Lamb, entire forequarters...	do	11
Lamb, short-cut chops........	do	27
Lamb, leg.........	do	24
Beef, sirloin, roast..............	do	18
Beef, rib roast, short cut	do	17
Beef, rib roost, second cut...	do	15
Beef, chuck roast........	do	12
Steaks, Porterhouse......	do	23
Steaks, sirloin......................	do	21
Steaks, rump.....	do	23
Steaks, tenderloin................	do	22
Steaks, round........................	do	12½
Beef, corned...	do	10, 12, 14
Beef, soup	do	7
Beef, stew...........	do	10
Veal, cutlets...........	do	21
veal, short-cut chops	do	20
Veal, loin.............................	do	12
Veal, entire forequarters	do	9
Veal, for stewing.....	do	8
Pork, loins, entire strip	do	17
Pork, cuts......	do	20
Sausage, pork.......................	do	17
Frankfurt sausage.....	do	17
POULTRY AND GAME.		
Chickens, dressed, (milk fed)	each...$1 40	
Fowls......................	do 1.20	
Capons, Philadelphia...........	do 2 40	
Ducklings............................	do 1.15	
Turkeys...................................per lb......		26½
Broilers, frys (chicken).	each...	65
Eggs, fresh..........................per dozen		29
DAIRY PRODUCTS.		
Butter, prints, prime quality.per lb....		34
Cheese, cream......	each...	22
Cheese. Neufchatel..............	do	6
Cheese, Camembert............	do	28
Cheese, Roquefort........ .... ..per lb......		45
Cheese, Young America.......	do	22
Milk, Briarcliff Farm.........per quart		**25
FRUITS AND VEGETABLES.		
Lemons.............. ....per dozen		14
Pineapples.........	each	10
Oranges........ ....per dozen		15
Limes................. ....per hundred		30
Bonanas................. ....per dozen		5
Cucumbers..................... ....per lb......		6
New potatoes.....	do	4
Cabbage................	do	3
Lettuce........................ .. .	do	11
Onions......	do	3¾
Cantaloupes........................	each	10
Huckleberries ....per quart.		25

** Indicates 5 cents allowed for return of bottle.

Sources of Canal Supplies.

The following list contains the date of arrival, ship, cargo, and port in the United States from which the Commission has received material and supplies for the Canal construction since July 1, 1907:

	Tons.
July 1, 1907—*Haakon VII*, from New Orleans with 1,190 barrels of mosquito oil................................	239
Schooner *Edward* from Barranquilla, brick................................	513
July 3, 1907—S. S. *Barbadian* from Liverpool, vitrified pipe................	31
July 4, 1907—S. S. *Venetian* from New York, galvanized iron pipe, etc	90
July 5, 1907—S. S. *Mobila* from New Orleans, shovels, furniture and boilers..	37
July 8, 1907—S. S. *Prinz Sigsimund*, from New York, pig iron and general cargo..	180
July 11, 1907—S. S. *Santona*, from Gulfport, 4,680 pieces of piling.	
July 12, 1907—S. S. *H. T. Inge*, from New Orleans, general cargo..........	3
July 15, 1907—S. S. *Tancred*, from Baltimore, coke........................	270
July 16, 1907—S S. *Altai*, galvanized iron pipe........................	40
Turpentine..	40
Steel rail	100
General cargo	10
July 13, 1907—Tug *Powerful*, from Newport News, three steel barges.	
July 18, 1907—S. S. *Ellis*, from New Orleans, general cargo....................	16
Lumber, 16,000 feet.	
July 20, 1907—S. S. *Kingswell*, from Gulfport, lumber, 1,418,111 feet.	
July 21, 1907—S. S. *Prinz Eitel Friedrich*, from New York, turpentine	10
Galvanized iron pipe......................	100
July 26, 1907—S. S. *Mobila*, from New Orleans, general cargo..........	31
July 27, 1907—S. S. *Mara Kolb*, from New York, three boilers and parts..	50
Track bolts..	30
Steam hammer (one), steel, brass and plates..	2,000
Hoisting engines (six), petroleum and gasoline....................................	100
Channels and angles.....................	200
Galvanized roofing.........................	30
July 29, 1907 S. S. *Venetia*, from New York, general cargo..............	38
July 30, 1907—S. S. *Everilda*, from Baltimore, rails and accessories....	4,600
August 2, 1907—S. A. *Karen*, from New Orleans, general cargo...........	22
August 3, 1907—seagoing suction dredge *Ancon*.	
August 4, 1907—*Hermia*, from Gulfport, lumber, 806,737 feet.	
August 4, 1907—S. S. *Trent*, from New York general cargo..............	52
August 4, 1907—S. S. *Mexican*, from Liverpool, fire clay........................	42
Vitrified pipe..	83
Brick	50
August 4, 1907—S. S. *Prinz Sigismund*, from New York beams and channels	70
General cargo..	103
August 8, 1907—S. S. *Haakon VII*, from New Orleans, general cargo	110
Lumber, 60,394 feet.	
August 8, 1907—S. S. *Ellis*, from New Orleans, hay........................	70
Oats..	40
General cargo..	15
August 9, 1907—S. S. *Dundonian*, from Gulfport, piling, 4,553 pieces.	
August 11, 1907—S. S. *Altai*, from New York, galvanized pipe and fittings..	180
Corrugated iron..	20
General cargo..	27
August 12, 1907—S. S. *Glanton*, from Brunswick, Ga., cross ties 1,512 pieces; 41,952 pieces.	
August 14, 1907—S. S. *Britannic*, from Fernandina, lumber 1,534,632 feet.	
August 16, 1907—S. S. *Mobila*, from New Orleans, mosquito oil...........	150
Hay..	50
Oats..	70
Switch material..	40
General cargo..	50
Lumber, 11,050 feet.	
August 18, 1907—S. S. *Prinz Eitel Friedrich*, general cargo...............	11
August 19, 1907—Tug *Jack Twohy*, from Baltimore, steel oipper dredge *Mindi*.	
August 19, 1907—S: S. *Asian*, from Barranquilla, brick........................	40
August 23, 1907—S. S. *H. T. Inge*, coal facing	10
Drain tile..	41
Hay..	23
General cargo..	60
August 24, 1907—S. S. *Wanderer*, from Liverpool, vitrified pipe.........	404
Glass, 41 cases.	
August 25, 1907—S. S. *Venetia*, from New York, nails........................	50
General cargo..	10
August 28, 1907—S. S. *Westhampton*, from Baltimore, dynamite.....	600
Switch material..	45
Corrugated roofing.........	180
Tie plates and spikes.....................	600
Steel rails...	918
Dredge material..	220
July 5, 1907—S. S. *Advance*, from New York, safes........................	12
Steel bars..	35
Wire cloth..	25
Bolts and nuts..	25
General cargo..	270
July 9, 1907—S. S. *Panama*, from New York, galvanized pipe and fittings..	60
Bolts and nuts..	25
Car material	300
General cargo	500
July 16, 1907—S. S. *Brunswick*, from New York, pipe and fittings.........	50
White lead..	50
General cargo	170
July 24, 1907—S. S. *Colon*, from New York, incinerators (6), car material	200
Pipe fittings..	120
Linseed oil, 1,500 cases, white lead, 4,181 kegs, shovel material........	75
General cargo	500
July 29, 1907—S. S. *Advance*, from New York, general cargo..............	200
Shovel material..	25
August 2, 1907—*Panama*, from New York, rock channelers (3).	
Galvanized pipe	100
Pipe fittings..	40
Dump car material	200
Water pipe	800
General cargo	300
Cement, 1,500 barrels.	
August 7, 1907—S. S. *Dunottar Castle*, from New York, cement, 3,500 barrels, dump car material..	100
Steam pile drivers (2), safes (4).	
General cargo..	290
August 14, 1907—S. S. *Finance*, from New York, general cargo..............	334
August 18, 1907—S. S. *Colon*, from New York, sulphur, 200 barrels.	
Dump car material........................	200
Rock channelers (3), iron pipe	75
Bolts and nuts	350
General cargo	300
August 25, 1907—S. S. *Advance*, from New York, general cargo	267
August 28, 1907—S. S. *Panama*, from New York, general cargo.............	125
Galvanized iron	25
Iron hydrants, 100.	

Immigration of the Year.

Exclusive of the contract laborers brought to the Isthmus at the expense of the Commission, during the fiscal year ending June 30th last, the number of immigrants arriving at the port of Colon, to which comes practically all the labor for the Canal, was 7,134 in excess of the number of emigrants. This excess includes both cabin and steerage passengers, with the latter largely in the majority. At the Pacific terminal of the Canal, the Collector of Customs reports that the number of passengers who left the port during the last year was 1,313 less than the number who entered.

The explosives used during the month of July in the Culebra Cut amounted to 150 pounds of black powder and 336,140 pounds of dynamite, or a total of 183 tons.

All Commission hotels are to be equipped with electric fans.

The Canal Record

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The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

Congratulations from the President.

CULEBRA, SEPT. 4. 1907.

PRESIDENT ROOSEVELT,
OYSTER BAY, N. Y.:

August excavation from the Canal Prism by steam shovels and dredges, 1,274,404 cubic yards. By steam shovels, 916,950 cubic yards, as follows: Culebra, 786,866 cubic yards; Gatun, 105,223 cubic yards; Mindi, Chagres, La Boca, aggregate, 24,861 cubic yards. By dredging, 357,454 cubic yards, as follows: Colon Division, 189,170 cubic yards; La Boca Division, 168,284 cubic yards.

This exceeds all previous United States' records. Highest preceding total for the Canal Prism was 1,058,776 cubic yards for July. Rainfall, 11.89 inches.

GOETHALS.

OYSTER BAY, N. Y.,
Sept. 5, 1907.

GOETHALS, CULEBRA.

I heartily congratulate you and all the men on the Canal for extraordinary showing you have made during the month of August. As this is the height of the rainy season, I had not for a moment supposed you would be able to keep up your already big record of work done, and I am as surprised as I am pleased that you should have surpassed it.

THEODORE ROOSEVELT.

August's High Record.

The August excavation from the line of the Canal by steam shovels and dredges, in detail, was as follows: The steam shovels dug in the Culebra division, 786,866 cubic yards; at the Gatun Lock site and spillway, 105,223 cubic yards; at Mindi, 15,257 cubic yards; at La Boca, 6,784 cubic yards, and in the Chagres division, 2,820 cubic yards, or a total at all of these points of 916,950 cubic yards. The dredges, at the Colon terminal of the Canal, excavated 189,170 cubic yards, and at the Pacific terminal 168,284 cubic yards or a total of 357,454 cubic yards.

Higher Steam Shovel Records

The best steam shovel records for August, are higher than those of July. Of the 95-ton shovels, during July, No. 211, made the highest record with a total for the month of 29,604 cubic yards. In the same class, shovel 213, made the next best total of 28,979 cubic yards. In the 70-ton class, during July, shovel 126, excavated 24,615 cubic yards and shovel 124 took out 18,240 cubic yards. All of these figures have been surpassed by the best totals for August. In the 95-ton class, shovel 205 dug 36,313 cubic yards, and shovel 206 took out 33,919 cubic yards. In August, one of the shovels in the 70-ton class, did better than the best 95-ton shovel in July—shovel 126 excavated 31,513 cubic yards. The shovel of this 70-ton class that was second for August, by making a total of 20,456 cubic yards accomplished more than the best second record for a shovel of this class in July.

Eight Millions for Faster Canal Work.

CULEBRA, AUG. 18, 1907.

Secretary of War,
Washington:

Construction work for this fiscal year is developing faster than was contemplated. Report of expenditures for July shows we are exceeding monthly allowance for labor and have already obligated, very largely, appropriation for material. Results are being obtained in proportion to increased expenditure and with lower unit cost. With present organization and programme, Canal can be completed more rapidly than by keeping within appropriations now available. As compared with last year's appropriation for construction, we have one million dollars less for labor, and the same for material, notwithstanding largely increased demands due to the necessity of starting new work on the Chagres Division, and relocation on the Panama Railroad for which no allowances were made. Work on locks and dams on each terminus has been opened up and should be pushed vigorously this year. Very little was expended at these points last year. Time of completion of Canal now appears to depend on work at Gatun, progress on Gatun dam dependent on removal of present railroad track to new location. In order to lay concrete in locks next year, plant must be contracted for this year, but appropriation not sufficient. If in accordance with Revised Statutes 3679, request authority to continue expenditures in excess of pro rata monthly allowance on account of present necessities and unforeseen developments since estimates were submitted, with understanding that Congress will be requested to make additional appropriation to cover the deficiency at next session. Additional funds required for construction this fiscal year, four millions for labor and four millions for material; total eight millions. This is required, not as an increase of cost of Canal, but in order to work faster. If not approved, request to be informed as soon as possible so that work can be reduced and expenditure kept within present appropriations.

GOETHALS.

WASHINGTON, D. C.,
Aug. 26.-27, 1907.

ISTHMIAN, CULEBRA:

President approves your request of the 18th to continue expenditures in excess of pro rata monthly allowance on account of present necessities and unforeseen developments since estimates were submitted, with understanding Congress will be asked make additional appropriation next session to cover deficiency.

OLIVER,
Acting Secretary of War.

More Fresh Vegetables.

The supply of fresh vegetables for the Canal Zone is to be increased by 200 tons every two weeks. During the past ten days a contract has been closed by which that amount of fresh vegetables is to be brought from New York to Cristobal by the ships of the Royal Mail.

New Supplies and Lower Prices.

The addition of new articles and the increase in variety of standard goods make the September commissary price list 68 pages, eight more than that of August. Examination of the list will show a reduction in prices. Granulated sugar in 5-pound sacks, in August was 23 cents; now it is 20 cents; in bulk, the August list quoted sugar at 4½ cents a pound, now it is 3⅓ cents. Yellow sugar was 4 cents, now it is 3 cents. The Jamaican cigars that were 15 cents are now 10 cents. Van Camp's Evaporated Milk has been added and sells for 9 cents. English York Hams, another new article sell for 25 cents a pound. Currants that were 12 cents, sell for 10 cents. The best grade of Central American coffee, formerly 26 cents a pound, is now 24 cents. Another grade that was 23 cents has been reduced to 21 cents. A Ceylon tea has been added to those carried and sells for 24 cents a pound. English bloaters, at 12 cents a tin; Anchovy sauce, in pint bottles, for 40 cents, are some of the new articles shown in the September list.

The supply of shoes has been greatly increased. The new list shows five more varieties of women's shoes; four additional kinds of misses' shoes and four more different varieties of childrens' shoes. The new supply of women's dress goods includes antrim lawn, chiffon, voile, in assorted colors, Careme, Niagara checks, and balls, Silk-Thistle and Washington chambray.

Zone Postal Service.

Moneys orders issued during the six months ending December 31, 1906, amounted to $819,193.91.

The amount of money orders issued for the six months' period ending June 30, 1907, is $1,499,771.43, which shows an increase of over 83 per cent.

This shows a total of money orders issued during the fiscal year just ended of $2,318,965.34, and this amount may be distributed as follows: $1,724,382.20 to the United States; $298,728.69 drawn on and payable in the Canal Zone; and $295,844.45 to the following West India islands: Antigua, $9,128.47; Barbados, $149,258.64; Dominica, $952.29; Grenada, $24,207.36; Jamaica, $91,105.36; Montserrat, $3,121.47; Nevis, $560.35; St. Kitts, $2,370.75; St. Lucia, $11,888.30; St. Vincent, $3,198.46; and British Honduras, $53.00.

During the first six months of this fiscal year, ending December 30, 1906, the sale of postage stamps in the various offices of the Canal Zone amounted to $23,394.01, and for the six months ending June 30, 1907, the sale of stamps amounted to $31,434.87. This shows an increase of the last six months over the first six months of the fiscal year of almost 35 per cent.

During the six months' period ending December 31, 1906, 30,191 money orders were issued, and during the six months' period ending June 30, 1907, 52,317 money orders were issued, an increase of over 70 per cent in the number of orders issued.

During the six months of this fiscal year ending December 31, 1906, there were registered in the Canal Zone 41,726 letters and parcels, and during the six months ending June 30, 1907, there were registered in the Canal Zone postoffice letters and parcels domestic and foreign, 53,679, showing an increase of more than 30 per cent over the last six months. Of the number registered in the last six months 23,276 were registered officially, free.

There were handled during the period January 1st to June 30, 1907, 21,801 pouches, tie sacks and registered sacks of mail.

Inspection of Food.

The Secretary of War has made arrangements with the Secretary of Agriculture at the request of the Canal Commission to have all commissary groceries and provisions, and other foodstuffs, inspected before shipment from the United States, so as to insure compliance with specifications and prevent the shipment of adulterated food supplies.

The Department of Agriculture has placed its laboratories and all facilities at New York and New Orleans, at the disposal of the Commission, and careful methods have been instituted to take samples from all shipments to be compared with samples of established purity in the laboratories of the Department of Agriculture.

Canal Port Business.

The number of vessels and the aggregate of their tonnage handled at the terminal ports of the canal during the fiscal years of 1906 and 1907, are shown in one of the tables accompanying the latest annual report of the Panama Railroad. During the fiscal year of 1906, 739 vessels brought 357,574 tons of freight to Colon and Cristobal, and carried away 131,742 tons. During the fiscal year of 1907, there were 880 vessels handled at these two ports and the total amount of their tonnage was 700,623 as against 489,316 for the year 1906, or an increase of 43 per cent.

At Panama and La Boca, the number of vessels handled during the fiscal year of 1906, was 146. During the fiscal year, 160 ships were cared for and their combined cargoes aggregated 8,977 tons more than the total handled during the fiscal year of 1906.

Zone Revenue.

The Collector of Revenues for the Canal Zone reports that during the first six months of the fiscal year of 1906 he received $3,122.65 for the distillation of rum on the Zone. For the six months ending June 30, 1907, the revenues from this source were $2,067.30. As rent for lands and buildings belonging to the Zone government, there was received during the six months' period ending December 31, 1906, the sum of $3,716.09 and for the six months' period ending June 30, 1907 this amount was $4,178.69. The former municipalities of the Zone were changed into administrative districts and transferred to the department of revenues on April 15, 1907, and since that time and to and including July 31, 1907, the following collections have been made: District of Ancon, $5,193.96; district of Empire, $13,764.25; district of Gorgona, $9,159.85; district of Cristobal 7,225.17; making a total of $35,343.23.

New Suction Dredge.

The first 20-inch pipe line suction dredge for use in the construction of the Gatun dam has been delivered at Cristobal, and is now in the process of erection. The engineers in charge of the dam at Gatun hope to have this dredge in operation by the first of January next.

Commissary Expansion.

A new commissary store will be established at East La Boca during the next three weeks and from it service will be made by wagon to the Ancon district. During the last week a store was opened at Las Cascadas.

The Cristobal laundry has now been improved and is prepared to handle work from all parts of the line and to make return within the same week of all work received by Wednesday.

Construction Plant.

The following is a statement of principal items of equipment in service or available on the Isthmus June 30, 1906, and June 30, 1907:

Equipment.	June 30, 1906.	June 30, 1907.
Steam shovels, 45 ton	1	3
Steam shovels, 70 ton	15	28
Steam shovels, 95 ton	23	32
Locomotives, French	100	100
Locomotives, New American	39	184
Cars, French Dump	541	250
Cars, American	324	455
Cars, American Flat (wood)	1,061	1,501
Cars, American Flat (steel)	500	500
Lidgerwood Unloaders	12	18
Bank Spreaders	13	13
Unloading plows	22	33
Track shifters	0	3
Pile drivers	1	7

The Gorgona foundry made 3,599,703 pounds of iron castings during the year ended July 30th last.

OIL AND MOSQUITOES.

Why the Sanitary Department Used 3,200 Barrels of Oil or about 160,000 Gallons During the Last Fiscal Year.

By Herman Canfield.

"What's the use of wasting all that oil on that pond?" "Don't you see the wind blows it from side to side and the skeeters can naturally fly up in the clear space and not get any on their wings?" is the question put in one form or another by almost every newcomer on the Isthmus to every sanitary inspector.

In the first place, there are about fifty known species of mosquitoes on the Zone and there are probably ten more unidentified. Of these fifty, ten and probably eleven are known to be Anopheles and one Stegomyia. Of the Anopheles two species are positively known to be the carriers of malaria infection and all Stegomyia participate in the conveyance of yellow fever infection. What the remainder of the Anopheles and the large number of Culex which are now considered only troublesome, are engaged in, is unknown.

The Sanitary Department is now at work on the solution of this problem.

All the fifty or more known species of mosquitoes have different life habits, that is, they breed under different conditions, they live and thrive under different conditions and in different places. The perpetuation of each species depends upon different conditions and their whole course of life and action depends upon their environment. The Sanitary Department takes the broad ground that a mosquito must be exterminated whether productive of disease or only profanity. Briefly this war of extermination is carried on against the Stegomyia and certain Culex varieties by the destruction of all water containers and against the Anopheles and other varieties of Culex by oiling and other measures. All streams and standing water are oiled to kill the larva and to prevent the female mosquito laying her eggs upon such waters. A good quantity of water is necessary for the breeding of mosquitoes. They do not breed in tall grass, weeds, or brush, or in merely damp places and fogs and miasmatic vapors will not answer at all. The water must be clean or foul for some species, stagnant or flowing for others; the water in a tree hole or hollow rock will answer for some; only water with algae (green scum), will answer for others, but all demand an appreciable constant supply of water for their full development.

When the female reaches the laying period she selects, according to the habits of her species, the body of water best adapted to the rearing of her young. All mosquitoes propagate their species through the medium of eggs. Many species can be identified by the number of eggs laid, the manner and shape in which they are deposited in the water and often by the character of the egg itself. Some mosquitoes lay a number of eggs and glue them together so that they float on the water like a boat; others dedeposit single eggs and yet others deposit eggs surrounded with a gelatinous matter like that surrounding frog's eggs. Now we do not know whether a mother mosquito has brains, but we do know that the eggs are placed on the water with the emerging point of the young downward, as even a moment's exposure to the strong sunshine would be fatal to the newly born baby mosquito, and we do know that the mother always selects the kind of water containing the kind of food that affords the best environment for the full development of her offspring. The eggs once launched upon the proper water surface, undergo rapid changes and under favorable conditions hatch out the larva in from twelve hours to six days, according to species.

"Be those things you call larva, 'wigglers,' and do they come from mosquito eggs?" is another question the sanitary inspector has to answer.

The "wigglers" in the rain barrel are nothing more or less than larva. But every "wiggler" is a "wiggler" after his own kind and Nature has allotted its position and work in this world as carefully and explicitly as our own. No two larva are alike in form, native habits or necessities of environment; every one of the fifty species has a plan of development and life laid out for it which differs from every other of its kind.

For practical purposes all larva possess one trait in common, viz: that whether bottom or surface feeders they must, at greater or less intervals, inspire oxygen, and for this purpose must come to the surface, and extrude their breathing apparatus into the free air. This is where the Sanitary Department catches the mosquito, for during the twelve days of their larval life, before developing into adult mosquitoes, these babies are at the mercy of the man with the oil sprinkler. The first ten days of a larva are devoted to eating and breathing, the last two days, when a pupa, to breathing alone. The larva does its breathing at the wrong end, so that the functions of eating and breathing shall not interfere with one another. The breathing tube is toward the end of the body, projecting from the back at different angles according to the species, the length and angles governing the position of the larva when coming to the surface for air. The tube of Anopheles, or malarial larva, is at right angles to the body and is so short that the larva lies absolutely horizontal when breathing. This position distinguishes it from all other larvas, as the breathing tubes of the large family of Culex and others, permit them to assume almost any position except the horizontal, even to standing on their heads. Beyond this tube, at the extreme end of the larva is a protuberance consisting of a tuft of hairs which act as "feelers," as the bristles on the face of a cat.

One more little contrivance of this baby must be described. This is a little valve at the opening of the tube which remains shut to keep out the water when the baby is submerged and opens to admit air when at the water surface. We can see now what happens when a larva wants to breathe; with a twist and a turn of its tail it wiggles to the top, thrusts its breathing tube into the air, opens the valve and takes in a full charge of oxygen, and down it goes to its feeding again; but where there is a a little film of oil on the water surface, this respiratory act has a different ending.

Before the breathing tube reaches the air the little hairy "feelers" have signalled, "back water, danger ahead," and without opening its air valve down it goes, an anxious and much mystified larva; it can not spend much time thinking it over, its air supply is running short fast and up it comes, shoves through the oil gasping for breath, the valve relaxs and admits fine oil particles into its tube and through its "lungs" it slips like molten lead, if it has strength to rise again it is only to receive one more death blow and death quickly follows. During the two or three days of its pupa state it developes two air tubes, like ears, at each side of its head and loses the one at the extremity. Now it is doubly susceptible and falls an easy prey to the oil trap set for it.

Of course the perfection of oiling would be a film over the entire surface but that is manifestly impossible to maintain. What are the chances of escape for the larva from this imperfect spread of the oils. All larva must come to the surface for air on an average of once every two minutes and they frequently come oftener. Consequently their life is endangered 30 times an hour, 720 times in the 24 hours and 8,640 times during the twelve days of their larval existence.

During the month of July there was drilled in the Culebra Cut by steam and air drills 55,290 lineal feet; well and mechanical churn drills, 34,246 lineal feet; hand drilling, 12,789; making a total of 102,325 lineal feet, or a total distance of 19.38 miles.

SPORTS AND GAMES.

Isthmian Baseball League.

I. C. C. WINS PENNANT AFTER HARD STRUGGLE.

The second season of the Isthmian Baseball League just closed was begun on the 28th of January last, when the following teams faced the flag to try for the pennant: Panama, Ancon, Cristobal, I.C.C. (Culebra), Empire, Gorgona and Marines. It was noticeable from the start that it would be a close race between I.C.C., Empire and Gorgona, these teams being about evenly matched. Just after the season started, the Panama club dropped out of the race, and a little later the Marines lowered their colors and withdrew, their place being taken by the Kangaroos, leaving I.C.C., Empire, Ancon, Gorgona, Cristobal and the Kangaroos to finish the battle.

The regular season closed on August 18th, when the I.C.C. team beat Gorgona, rendering the race for the pennant a tie between Empire and I.C.C., each having won 15 and lost 7 games. A series of three games was then arranged by the League for the purpose of settling the pennant race.

The first game of this series was played at Empire on August 25th, resulting in a victory for the I.C.C.'s by a score of 6 to 0, in one of the best played games of the season. The second game was played last Sunday at Ancon, the I.C.C. team being again victorious, this time by the score of 4 to 2, thus taking two straight games of the series and winning the pennant for the season of 1907.

The firm of Maduro, Lupi & Co., of Panama, presented to the league, through President Purnell, a very handsome silver cup, to be turned over to the club winning the pennant, which now goes to the boys from the heights at Culebra.

The season just ended has been an unusually satisfactory one, both from the standpoint of interest manifested by the friends of the various clubs, and the continued increase of attendance at the games, besides a steady improvement in the class of ball played.

The friends of the I.C.C. club have arranged for a banquet to be given in honor of their victory at the Hotel Tivoli, on next Saturday evening, at which 100 guests will be seated, the invitations being limited to that number, although scores of others have expressed a desire to be present. Those in charge of the affair say that it will eclipse anything of its kind held on the Isthmus in years.

It is not known yet just when the next season will start, but the baseball men believes it will surpass the season of 1907, as the interest is growing and the rivalry is intense.

Below is the summary of the game:

I. C. C.

	A.B.	R.	H.	P.O.	A.	E.
Bryan, 3b	5	1	1	6	2	1
Huff, P., c.f.	4	0	1	0	0	0
Bell, 1b	4	0	2	14	0	2
Christopher, 2b	4	0	1	0	3	1
Gamble, s.s	3	1	0	2	1	1
South, l.f.	4	1	1	0	0	0
Avis, r.f.	4	0	0	0	0	0
Yingling, c	4	1	2	3	8	1
Shannon, p	2	0	0	0	3	0
Sorrell (5th)	2	0	0	2	3	0
	36	4	8	27	17	6

EMPIRE.

	A.B.	R.	H.	P.O.	A.	E.
Gazzonni, s.s	3	1	1	2	1	0
Fluharty, p	4	0	1	1	11	0
Pierman, c.f.	4	0	0	1	2	2
Toone, c.f.	4	0	0	0	0	0
Murphy, l.f.	3	0	0	3	0	0
Craddock, 2b	3	0	0	4	1	2
Fussner, 1b	2	1	1	8	0	0
Bowers, r.f.	3	0	0	0	1	0
Henry (8th)	1	0	0	0	0	0
McCusty, c	3	0	0	8	3	0
	30	2	3	27	19	4

Innings	1	2	3	4	5	6	7	8	9	
I. C. C.	1	1	0	0	0	0	2	0	0	4
Empire	1	0	0	0	0	0	1	0	0	2

Stolen bases—I. C C., 2; Empire, 3. Two-base hits—Bryan. Double plays—Gamble to Bryan. Base hits—Off Shannon, 1; off Sorrell, 2; off Fluharty, 8. Strike-outs—By Shannon, 1; by Sorrell, 2; by Fluharty, 7. Base on balls—By Shannon, 2; by Sorrell, 1; by Fluharty, 1. Hit by pitcher—By Sorrell—1. Umpire—Dr. Summersgill. Scorer—W. G. Manley. Time of game—Two hours.

Culebra Chess Club.

The classification tournament, which started August 5, closed Monday, September 2. It has been well attended and very successful. Of the fifteen competitors originally entered, thirteen completed their games.

The following is the schedule showing scores and rank of each player:

CLASS A.

NO.		WON	LOST	POINTS
1	M. Meltzer	10	2	plus 8
2	T. C. Hubbert	9½	3	plus 7½
3	W. C. MacIntyre	9	3	plus 6
4	J. P Warden	8	4	plus 4
5	S. Seljan	7½	4	plus 3½
6	L. Dubois	7	5	plus 2
7	H. E. Griffin	7	5	plus 2

CLASS B.

NO.		WON	LOST	POINTS
1	A. C. Griggs	5	7	minus 2
2	J. C. Keller	5	7	minus 2
3	Geo. W. Strong	5	7	minus 2

CLASS C.

NO.		WON	LOST	POINTS
1	L. T. Maenner	3	9	minus 6
2	G. S. Johnson	2	10	minus 8
3	C. D. Newman	—	13	minus 13

In the following tournaments a victory over three players in any class entitles the victor to be numbered in that class.

The officers of the Chess Club are: Geo. W. Strong, president; M. Meltzer, secretary; Wm. DuBois, chess master.

Bowling League.

Standing of teams on September 7:

TEAM.	—Number of Games— PLAYED.	WON.	LOST.	PER CENT.
Cristobal	15	10	5	.666
Empire	15	10	5	.666
Gorgona	15	8	7	.555
Culebra	15	2	13	.133

Empire Club.

Secretary J. Floyd McTyier reports the following lecture schedule for the coming week at the Empire club house:

Friday, September 13, 8:00 p.m.—Smoker. Program to consist of music by orchestra, solos, monologues, ventriloquism, etc.

Saturday, September 14, 8:00 p.m.—"The Interior of Panama." Lecture by Mr. J. C. Elkins.

Tuesday, September 18, 8:00 p.m.—Star course entertainment. "The Mission of Mirth," by Mr. Thomas McClary of Minneapolis, Minn.

Saturday, September 21, 8:00 p.m.—Lecture by Mr. Mason Mitchell.

Sunday, September 22, 3:00 p.m.—Meeting for men.

Besides the above-mentioned events, the regular activities in and about the building that will take place at the usual hours, are the following:

Spanish Class No. 1—Monday and Thursday evenings each week at 7:30.

Spanish Class No. 2—Wednesday evenings at 7:30.

Boxing Club—Friday evenings at 8:00.

Building open for ladies every Tuesday and Thursday afternoons from 2:30 to 5, and are invited to all public functions.

Gorgona Club.

Mr. Ralph R. Wolf, the secretary, has arranged for the following evenings:

WEDNESDAY, SEPTEMBER 11.

7:00 to 8:20—Gymnasium Class, hall. Mr. Ferris in charge.

8:00 to 10:00—Local bowling tournament. No. 2 vs. 3.

8:00 to 9:00—First Aid to the Injured. Dr. Macy.

THURSDAY, SEPTEMBER 12.

2:30 to 4:30—Open house to Women. Women's Club meeting.

8:15 p.m. sharp—Second Isthmian lectures; Messrs. R. W. Bergin and H. G. Prescott. Subject: *Old Days on the Panama Railroad.*

7:00 to 8:15—Boxing and wrestling club, hall. Mr. Hennen in charge.

8:00 to 10:00—Practice bowling; first team vs. Scrubs.

7:00 to 8:00—Fencing, committee room Mr. Montavani in charge.

FRIDAY, SEPTEMBER 13.

7:00 to 8:15—Gymnasium class, hall. Mr. Ferris in charge.

7:00 to 8:00—Conferences of all members interested in Spanish.

8:15 to 9:45—Spanish class, mess hall.

SATURDAY, SEPTEMBER 14.

Zone Bowling League—Culebra vs. Gorgona at Culebra.

8:15—Public reception to meet newcomers and non-members; ladies invited. The Gorgona Woman's Club will receive, and have open house to all the white public.

SUNDAY, SEPTEMBER 15.

3:00 sharp—Third of Isthmian lectures; Mr. L. F. de Montmerency. Subject: *The Old Isthmus* (stories and incidents). Open house. No charge.

Mr. Thomas McClary will give the fourth Lyceum entertainment on either Tuesday, September 17, or Thursday, September 19.

Concert.

By the I. C. C. Band at La Boca, C. Z., Sunday, Sept. 15, 1907, at 2.30 p.m.:

PROGRAM.

1	March	*Dunlap Commandery*	Hall
2	Overture	*Raymond*	Thomas
3	Waltz	*Zenda*	Flowtow
4	Intermezzo	*Iola*	Witmark
5	Baritone solo	*Beyond the Gates of Paradise* D. E. NORCROSS.	King
6	Medley	*Remick's Hits*	Lampe
7	Idyl	*The Old Mill*	Ramsdell
8	Selection	*The Bohemian Girl*	Balfe
9	Descriptive fantasie	*Cavalry Charge*	Luders

SYNOPSIS—Morning of the battle; infantry heard approaching with fifes and drums; cavalry in the distance, coming nearer and nearer until they charge upon the enemy; cavalry, infantry and artillery in the melée of battle; defeat of the enemy, pursued in the distance by the cavalry.

10	March	*Heart of Rome*	Brooks

CHAS. E. JENNINGS,
Musical Director.

FRENCH AND AMERICAN RECORDS.

Highest elevation on new center line of Canal before excavation began by the French:	FEET
At Culebra	312
At Bas Obispo	233
Greatest depth of excavation by the French:	
On I.C.C. Canal axis at Culebra	161
On I.C.C. Canal axis at Bas Obispo	148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-feet level canal:	
At Culebra—at same point as before	111
At barrier on Contractor's Hill ... about	140
At Bas Obispo	45
Amount excavated under American control:	CUBIC YARDS
In Culebra Division (canal prism) to September 1, 1907	9,633,763
Total excavation by the French at all points and including diversion channel ... about	70,600,006
Total estimated excavation required April 1, 1907 for an 85-feet level canal:	
In canal prism	101,050,000
On lock sites	7,965,000
For regulating work and diversion channel	2,150,000
Dredging in old Channel, Cristobal to Gatun, to open construction channel; and at Panama, to keep channel open to La Boca	3,350,000
Total	114,515,000

EXCAVATION BY DREDGES

Monthly Totals since American Occupation at Colon.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1905		1906		1907	
	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism
January				90,700		111,100
February				105,500		110,002
March				126,650		84,145
April				87,200		69,889
May } June }		60,700		64,875		133,847
June				73,500	17,000	107,118
July		58,050		69,000	*104,322	5,600
August		53,183		54,000		
September		48,837		123,540		
October		48,800		111,020		
November		38,000		63,260		
December		92,250		58,400		
Totals		399,820		1,027,645	121,322	621,701

Total to Aug. 1, 1907—2,170,488 cubic yards.

* On this division there was also removed from the prism 731 yards in the Mindi Hills by steam shovels.

Monthly Totals since American Occupation at La Boca.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1905		1906		1907	
	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism
January				95,940		9 ,710
February				95,940		93,480
March				116,820		92,319
April				110,700		104,855
May				112,340		122,157
June		50,676		62,697	64,352	67,228
July		41,533		98,400	108,338	
August		54,530		111,930		
September		114,308		105,780		
October		81,836		97,170		
November		71,176		92,988		
December		71,094		90,528		
Totol		485,153		1,191,233	172,690	

Total to Aug. 1, 1907—2,423,825 cubic yards.

RECORD OF EXCAVATION.

Monthly Totals Since American Occupation.

CULEBRA DIVISION.

By Steam Shovels.

Months	1904 Cubic Yards	1905 Cubic Yards	1906 Cubic Yards	1907 Cubic Yards
January		70,650	120,990	566,750
February		75,200	168,410	639,112
March		132,840	239,178	815,270
April		126,749	213,177	879,527
May	27,556	75,935	196,209	690,365
June	32,551	76,905	212,623	624,586
July	31,599	78,570	159,789	770,570
August	35,056	49,210	244,823	786,866
September	25,220	44,085	291,452	
October	19,695	52,940	327,009	
November	28,860	60,540	221,642	
December	42,935	70,630	307,689	
Totals	243,472	914,254	2,702,991	5,773,046

Total, 1904	243,472 cubic yards
Total, 1905	914,254 cubic yards
Total, 1906	2,702,991 cubic yards
Total, 1907 (eight months only)	5,773,046 cubic yards
Grand total to Sept. 1, 1907	9,633,763 cubic yards

GATUN.

LOCKS, DAMS AND SPILLWAYS.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1906		1907	
	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside of Prism
January			47,539	
February			70,177	
March			100,151	
April			103,459	
May			70,528	
June			71,181	3,832
July			59,537	14,628
August				
September				
October	3,055			
November	11,517			
December	12,506			
Totals	26,628		522,572	18,460

LA BOCA.

January				
February				
March			538	
April				
May				3,367
June				1,756
July			4,725	762
August				4,907
September				9,047
October				
November				
December				
Totals			5,263	19,839

Among the items of material and supplies handled during the last fiscal year, Mr. Tubby reports 23,300,000 feet of lumber; 254,000 cross ties, 4,000 piles and about 50,000 tons of miscellaneous cargo. This material was handled by 252 gold employees, 534 silver men and 503 colored laborers, making a total of 1,289 men.

The average number of men on the roll of the Building Department during the last fiscal year was 3,570 men.

One hundred and fifty buildings at Culebra are now equipped with a total of 2,393 electric lights. At Empire, 70 houses contain a total of 1,030 lights.

Material and supplies received during the last fiscal year amounted to 37 full cargoes of material and part cargoes from about 150 ships.

One hundred and sixty-two locomotives worked in the Culebra Cut during July.

The pole line for the Culebra-Empire electric light plant is to be extended to Las Cascadas and Paraiso, and these towns are to be wired for lights.

An automatic fire alarm telegraph system for Commission buildings at Ancon and in the city of Panama is to be established.

The Commission architect prepared 145 finished sets of drawings during the last year.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name of the writer.)

A Pearl Island Trip.

To The Canal Record:

Through the efforts of Mr. R. H. Oliver of the Mechanical Department draughting room, Culebra, a trip, over Labor Day to Pearl Island, in the Pacific, about 70 miles south of Panama, was arranged and carried through successfully.

A schooner of about thirty tons capacity was chartered from Pinel Bros., Panama, for $ 00 gold. Commissary supplies to the amount of about $70 were purchased, and proved to be more than sufficient for our needs during the trip which consumed approximately two full days. The cost per member was something like $6.50.

The party comprised 25 men, made up of 21 from Culebra and 4 from Empire, and left Pinel Bros'. pier, near the market, 10 o'clock Saturday night. We were rowed out to the schooner which was anchored about a quarter of a mile off shore. Anchor was weighed at 11 o'clock. With a continuous good wind we should have reached the island 10 o'clock Sunday morning; as it was, we got there 4.30 Sunday afternoon. The vessel anchored a mile and a half off shore, and, it was nearly 5.30 before the whole party had been landed.

The island is the largest of a group and the picturesqueness of its natural beauty, as well as that of the surrounding islands, is a delight to the eye. The village on the island, comprising some one hundred or more shacks, is so situated that every hut can be seen as viewed from the deck of the schooner, with the diminutive spire of its lone church showing up most prominently.

Owing to the lateness of the hour at which we landed there was very little time for touring the island or the village. The natives are of the type to be found in most of such island settlements and in the more remote native settlement, throughout the Zone, as we know them. Pearl fishing is practically the only industry.

We returned to the vessel just as dusk was coming on and remained aboard over night. Early Monday morning the whole party again returned to the island and spent the time until 11 a.m., touring the village, bathing and getting photographs. There is an excellent beach and the bathing is all that one could wish.

We started on the return trip at 11 o'clock Monday morning and arrived at Panama about 4.30 Tuesday afternoon. The trip down consumed 19 hours and that returning 29 hours.

To those of our friends who contemplate such a trip we beg leave to mention that the petty hardships incidental to same are out of all porportion to the pleasure to be derived. That is to say, with a limited time at your disposal, the use of a somewhat antiquated sailing vessel, with no means of avoiding the inclemencies of the weather or the fierce heat of the sun, sleeping on deck wrapped in a blanket, etc., one is apt to feel that way.

The Culebra contingent comprised Messrs. Oliver, Dunning, Ham, Brown, Eichler, Lawlor, O'Reilly, Poore, Sholtes, Reagan, Hubbert, Harrington, Carr, Bell, F. A. Brown, Cotton, Hall, Cameron, Earle, Windsor; that from Empire, Messrs. P. W. Davis, O. M. Davis, Rabbitt, Shaw and Strink.

W. O. O'Reilly.

Culebra, Sept. 6, 1907.

Extra Copies of The Record.

The Canal Record:

I wish to subscribe, if possible, for one or two more copies of The Canal Record right through the year, and have one of these sent to the Engineering Library, University of Illinois. Will you kindly write me if this can be arranged at my own expense.

E. O. Keator.

Gatun, C. Z., Sept. 6, 1907.

[A copy of The Record will be sent free regularly to the Engineering Library, University of Illinois, as such institutions are entitled to receive it. Such extra copies as employees desire can be obtained at the Panama Railroad news stand. No subscription list will be kept.]

Locomotive Engineers and Longevity.

The Canal Record:

We were all very glad indeed to get The Record to-day at Las Cascadas and I for one want to thank you for filling a long felt want on the Isthmus, and I heard many appreciative remarks as the men read the columns of your neat little paper.

I noticed in "Longevity Regulations" that you have inadvertently left out of the list Locomotive Engineers as receiving the five per cent. increase after the first year's service and the additional three per cent after that; all the locomotive engineers will thank you heartily if you will correct this mistake in your next issue.

Thanking you in advance for the favor and wishing you the very best success, I am,

James G. Craig,
Locomotive Engineer.

[The Locomotive Engineers have been added to the list.]

Culebra Hotel.

(Extract from a letter to the Baltimore Sun.)

I would like to give you a little information as to the food served here, for when I left Baltimore last April to come here the newspapers had a good deal to say about the food served Americans. Let me say right here that there is no hotel in the States that can serve such meals as are served here for 30 cents. No hotel could make expenses by serving the quantity and quality of food as served here for less than 50 cents. The hotel (kitchen, pantry, dining room, store room, butcher shop and bakery), is inspected by the district physician two or three times a week. The food, its quality, how cooked, how served, dishes, utensils, silver, glasses, table linen, hotel help, etc., are all inspected. Yet some of the boarders are always kicking. Especially in the dining room reserved for clerks there is always some kicking by clerks, who, no doubt, never had a higher position in the States than office boys or chief clerk at some business place at $5 a week. Admiral Rosseau, Major Harding and Lieutenant Wood all dine here. They never kick, no doubt because they were used to good living before working for the United States or coming to Panama. Below is the bill of fare for to-night's dinner:

Oyster stew; roast turkey stuffed, with cranberry sauce; beef a la mode; sliced tomatoes, sugar corn, mashed potatoes, rice fritters with vanilla sauce; asparagus on toast, banana custard, cake, watermelon, tea, coffee and cocoa.

Now, if there is a hotel in Baltimore that can duplicate this at the price, and serve two or three orders of any dish if a boarder ask for them, I would like to know which hotel it is, so that I may know where to stop when I again get back to Baltimore.

With many good wishes for the success of The Sun.

Carl L. Reisinger.

Culebra, Isthmus of Panama.

Edgar H. de Senan, manager of the hotel requests the publication in The Canal Record of his menu for September 8th, as follows:

MENU:

Mixed pickles; Rhode Island clam chowder; lobster with mayonnaise; roast young turkey (stuffed) with cranberry sauce; French toast with fruit sauce; asparagus with melted butter; potatoes in cream; chocolate ice cream; jelly cake; cheese; crackers; tea; cocoa; coffee. Dinner—5 to 7 p.m.

The population of Panama is estimated by the Sanitary Department to to be 34,179; that of Colon as 14,632 and that of the Canal Zone 54,325.

Order of Red Men.

THE CANAL RECORD:

Referring to your announcement in the issue of THE RECORD about publishing matter of general interest, I would thank you to insert the following:

The Improved Order of Red Men, with tribes at Cristobal, Gorgona, Las Caseadas, Empire, Culebra, and Pedro Miguel, is the largest Fraternal Organization on the Isthmus, having almost 700 members.

Cocles Tribe No. 3, at Empire, is especially progressive, and on Saturday, August 24th, initiated a class of ten pale-faces from Pedro Miguel.

The tribe would be pleased to have all members of the order visit the wigwam at Municipal Hall, Empire, Canal Zone.

Regular meetings held every Friday evening at 7.30.

HARRY E. RUCKERT,
Chief of Records.

Empire, Sept. 5, 1907.

Ohio Club.

GORGONA, C. Z., Sept. 8, 1907.

The Ohio Club of the Canal Zone will give a social at Gorgona Hotel, Saturday evening, September 14th. All Ohio men, whether members or not, are cordially invited to attend. If those wishing to be present will notify President C. W. Kempton, the necessary arrangements will be made. All the expenses of this social will be borne by the Ohio Club.

Kaigh's of Pythias.

EMPIRE, C. Z., Sept. 7, 1907.

THE CANAL RECORD:

Will you kindly publish the following notice in your next issue:

There will be a special meeting of Empire Lodge No. 2, Knights of Pythias, on September 14th, for the purpose of instituting Culebra Lodge No. 3. All members are requested to be present. Visiting brothers invited.

P. F. MAHER,
Chancellor Commander.

EARLY DAYS ON THE ISTHMUS

From an Address by W. C. Haskins, of the Department of Material and Supplies, before his fellow-citizens, at Oelwein, Iowa, in July last.

The first quarters assigned me after my arrival on the Isthmus, July 1, 1904, were in an empty ward at Ancon Hospital, which lies just outside of Panama city. There were as near as I can recollect about thirty single iron beds of French make, ranged hospital style, a row on each side of the room. Our conveniences there were far from de luxe. One straight-backed chair was made to do duty for the entire bunch, and this useful article was generally found in the morning alongside the bed of the one who was last in at night. We had but one lamp, and this was usually empty. There were no mirrors, and the fortunate possessor of an individual looking glass was to be envied. Some combed their hair and shaved with the aid of the swinging glass windows backed up against the wall. There were but two washstands for all of us, but thanks to the French, there were a couple of pretty decent shower baths. We lived in constant dread of the alacran, or scorpion, who seems to have a penchant for buildings long unused, and for going to sleep in your clothes or shoe after having retired for the night. One morning, one of these fellows, which have a stinger where their tail ought to be, dropped from the ceiling to the wash basin, where I was performing my ablutions. On another occasion I shook one out of the fold of my collar, where he had been enjoying a quiet snooze.

Commission Clubs.

A. Bruce Minear, general secretary of the Y. M. C. A., has prepared the following statistical report of the operations at the four Commission Club houses, during August:

Total membership, August 31	1,662
Membership increase for the month	273
Total number bowling games	5,422
Average per day	208
Total number games of billiards and pool	10,430
Average per day	400
Total income from soda fountains	$1,243
Average income per day	$40.05
Number of different men using gymnasium	222
Number enrolled in Chess and Checker clubs	81
Number enrolled in Glee clubs	47
Number enrolled in Dramatic and Minstrel clubs	38
Number enrolled in Debating clubs	16
Number enrolled in Orchestras	34
Number enrolled in Bible clubs	12
Number enrolled in Spanish classes	86
Number enrolled in Mechanical Drawing class	12
Number of Sunday meetings	11
Total attendance	698
Number of Travel Talks	3
Average attendance	150
Number of imported entertainments	7
Average attendance	272
Number of functions outside of Association mangement	7
Average attendance	101
Number of afternoons for women	36
Average attendace	13
Number of evening functions to which women were invited	37
Average attendance of women	31
Number of committees	56
Different men on committees	274
Number of letters written at public tables	6,925
Average per day	223
Total attendance at building exclusive of functions by outside clubs	21,390
Average attendance per day	690

FINANCES OF THE CANAL

Appropriations and Expeaditures Down to June 30, 1907.

Appropriations—	
For purchase of canal rights	$40,000,000.00
For purchase of territorial rights	10,000,000.00
For construction of canal:	
June 28, 1902	10,000,000.00
December 21, 1905	11,000,000.00
February 27, 1906	5,990,786.00
June 30, 1906	25,456,415.08
Total appropriations	102,447,201.08
Revenues of the Canal Zone	215,094.69
Total	102,662,295.77
Disbursements—	
For canal property, right of way and franchises	50,000,000.00
For Panama Railroad stock owned	157,118.24
For material and supplies, including cost of purchase, handling and transportation thereof, and exclusive of material issued and charged againt the account representing the work in which employed	3,649,655.13
Expenditures for salaries, wages, traveling and contingent expenses, and materials used:	
For general administration	1,403,557.68
For Law and Government	1,430,581.60
For Sanitation and Hospitals	4,360,875.43
For Construction and Engineering	15,594,834.17
For plant	18,484,300.74
Loans to the Panama Railroad Company	1,631,257.34
Advances to the Panama Rail road Company	1,826,683.50
Individuals and companies, representing expenditures for supplies and services furnished the Panama Railroad Company, and other interests engaged in allied work and for which collections have been or will be made, and the proceeds thereof deposited in the Treasury of the United States as miscellaneous receipts	1,950,952.28
Total	100,489,816.11
Statement of amounts due to Isthmian Canal Commission by various individuals and companies and by Isthmian Canal Commission to various individuals and companies remaining unsettled on June 30, 1907, but included in statement:	
Due by I. C. C. for June rolls, unpaid wages and miscellaneous collections for individuals and companies	3,252,655.11
Due to I. C. C. for transportation, services rendered and material sold	716,976.36
Net balance due by I. C. C. included in above statement, but unsettled June 30, 1907.	2,535,678.75

PANAMA RAILROAD COMPANY,
OFFICE OF GEN'L MANAGER,
COLON, Sept. 6, 1907.

CIRCULAR No. 46:

Effective this date, the following changes in organization will be effective:

Mr. J. A. Smith is appointed Superintendent in charge of Transportation including water terminals at Colon and La Boca.

Mr. R. W. Bergin is appointed Assistant Superintendent, the position of Master of Transportation being abolished.

W. G. BIERD,
Assistant to President, and General Manager.

Approved:

GEO. W. GOETHALS,
President.

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Mr. H. H. Rousseau, U. S. N., Culebra.
Mr. J. C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
C. A. McIlvaine, chief clerk.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, chief clerk.
R. B. Smith, Resident Engineer, Cristobal,
W. G. Comber, Division Engineer, La Boca.
David B. Stratton, chief clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, chief clerk.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
E. P. Thompson, chief clerk.

Wm. Gerig, Division Engineer, Cristobal.
Mrs. C. L. McPherson, chief clerk.

Sydney B. Williamson, Division Engineer, La Boca.
E. A. LeMay, chief clerk.

R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormick, chief clerk.

Division of Map Making and Lithography: Charles F. Bertoncini, Chief, Ancon.
Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: H. H. Rousseau, U. S. N. Culebra.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, chief clerk.

George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, chief clerk.

W. M. Belding, Master Builder (Division of Building Construction), Culebra.
F. H. Barbour, chief clerk.

Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, chief clerk, Cristobal.
W. C. Haskins, chief clerk, Ancon.
Wm. Krugel, Stationer and Printer. Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, chief clerk, Ancon.

Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
H. M. Gudger, Deputy Collector, Ancon,
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, chief clerk.
C. E. Weidman, Chief, Fire Department, Ancon.
E. H. Hale, chief clerk.
Geo. L. Campen, Water Commissioner, Ancon.
Inocencio Galindo, legal adviser, Ancon.

Canal Zone Judiciary.

Canal Zone Judiciary: Supreme Court, Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, clerk of court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire.
Elbert M. Goolsby; Circuit Court clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court clerk, Cristobal.
Prosecuting Attorney: George M. Shontz, Ancon.
Acting Prosecuting Attorney: Thomas E. Brown, Jr., Ancon.
Translators: F. H. Sheibley and Charles M. Brown.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Harry C. Bovay, chief clerk.

H. R. Carter, Director of Hospitals, Ancon.
J. C. Perry, Chief Quarantine Officer, Ancon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.
Maj. John. L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
Lieut. R. E. Wood, U. S. A., Assistant Manager, Culebra.
S. C. Klauber, chief clerk.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
W. M. Wood, chief clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, chief clerk.

Panama Railroad Company.

W. G. Bierd, assistant to the President, and General Manager, Colon.
W. G. Tucker, secretary, Colon.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Colon	*P.RR.*	*Saturday*	*Sept.*	*7*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Sept.*	*7*
Orinoco	*R.M.*	*Saturday*	*Sept.*	*7*
Advance	*P.RR.*	*Thursday*	*Sept.*	*12*
Venetia	*H.-A.*	*Saturday*	*Sept.*	*14*
Panama	*P.RR.*	*Wednesday*	*Sept.*	*18*
Prinz Sigismund	*H.-A.*	*Saturday*	*Sept.*	*21*
Atrato	*R.M.*	*Saturday*	*Sept.*	*21*
Dunottar Castle	*P.RR.*	*Tuesday*	*Sept.*	*24*
Altai	*H.-A.*	*Saturday*	*Sept.*	*28*
France	*P.RR.*	*Monday*	*Sept.*	*30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston enroute to Colon

FROM COLON

Dunottar Castle	*P.RR.*	*Monday*	*Sept.*	*9*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Sept.*	*10*
Atrato	*R.M.*	*Wednesday*	*Sept.*	*11*
Finance	*P.RR.*	*Saturday*	*Sept.*	*14*
Altai	*H.-A.*	*Saturday*	*Sept.*	*14*
Colon	*P.RR.*	*Friday*	*Sept.*	*20*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Sept.*	*24*
Advance	*P.RR.*	*Wednesday*	*Sept.*	*25*
Trent	*R.M.*	*Wednesday*	*Sept.*	*25*
Venetia	*H.-A.*	*Saturday*	*Sept.*	*28*
Panama	*P.RR.*	*Tuesday*	*Oct.*	*1*

All Royal Mail steamers mentioned above, and the *Prinz Eitel Friedrich* and *Prinz Sigismund* call at Kingston enroute to New York.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 23d of each month. Connections made for Trinidad by steamers sailing on the 23d.

Commissary Prices.

For week ending Sept. 7;

FRESH MEATS.		*Price.* CTS.
Mutton, entire forequarters,	per lb....	10
Mutton, short-cut chops	do	19
Mutton, leg	do	17
Lamb, for stewing	do	11
Lamb, entire forequarters	do	11
Lamb, short-cut chops	do	27
Lamb, leg	do	24
Beef, sirloin, roast	do	18
Beef, rib roast, short cut	do	17
Beef, rib roast, second cut	do	15
Beef, chuck roast	do	12
Steaks, Porterhouse	do	23
Steaks, sirloin	do	21
Steaks, rump	do	23
Steaks, tenderloin	do	22
Steaks, round	do	12½
Beef, corned	do	10, 12, 14
Beef, soup	do	7
Beef, stew	do	10
Veal, cutlets	do	21
veal, short-cut chops	do	20
Veal, loin	do	12
Veal, entire forequarters	do	9
Veal, for stewing	do	8
Pork, cuts	do	20
Sausage, pork	do	17
Frankfurt sausage	do	17
Ham, Sugar Cured Sliced	do	25§
Ham, ½ (for boiling)	do	20§
Bacon, English breakfast, sliced	do	26§
POULTRY AND GAME.		
Chickens, dressed, (milk fed)	each...	$1.40
Fowls	do	1.20
Capons, Philadelphia	do	2.40
Turkeys	per lb......	26½
Broilers, frys (chicken).	each...	65
Eggs, fresh	per dozen	29
DAIRY PRODUCTS.		
Butter, prints, prime quality	per lb....	34
Cheese, cream	each...	22
Cheese. Neufchatel	do	6
Cheese, Camembert	do	28
Cheese, Roquefort	per lb......	45
Cheese, Young America	do	22
Milk, Briarcliff Farm	per quart	**25
FRUITS AND VEGETABLES.		
Lemons	per dozen	15
Pineapples	each	10
Oranges	per dozen	15
Apples	per lb......	6*
Limes	per hundred	30
Bananas	per dozen	5
Peaches	per lb......	12
Celery	per bunch	22
Cucumbers	per lb......	5
New potatoes	do	3
Sweet do	do	2¼
Cabbage	do	3
Lettuce	do	7*
Onions	do	3
Watermelons	each	25
Cantaloupes	do	8
Huckleberries	per quart.	25

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* Indicates reductions from last list.

** Indicates 5 cents allowed for return of bottle.

§ Sold only from Cold Storage and not from Commissaries.

The total number of reported deaths on the Isthmus during the month of July was 357, of which 115 were in Panama; 83 in Colon and 159 on the Canal Zone.

The Canal Record

Volume 1. ANCON, CANAL ZONE, WEDNESDAY, SEPTEMBER 18, 1907. No. 3.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

Early Work on Gatun Dam.

A dipper dredge is now engaged clearing the soft material from the bed of the Chagres within the space to be occupied by the dam. As soon as this is completed the old Chagres will be shut off at the down stream toe of the dam and a 16-inch suction dredge now in commission will be placed in position for pumping material into the dam. It is hoped therefore to start the construction of the Gatun dam before the first of January, as announced in the last issue.

Erecting Plant for Gatun Locks.

Studies of the erecting plant for the Gatun Locks are well advanced. The present thought is to transport by water, all of the stone, sand and cement to a dock near the lock site. This material is to be unloaded by cableways, and transported to storage, and also directly to a platform under which will pass cable cars in which will be loaded the stone, sand and cement in proper proportion for concrete. This cable road goes over the mixers. The mixed concrete will be transported by small engines and cars to cableways. By means of these cableways the concrete in the floor, and in the wider part of the walls, will be laid, it is hoped, in the dry season. The upper and narrow parts of the walls will be laid by some form of crane, working under temporary shelter so as to protect the concrete from the rain during the wet season. The concrete will be delivered to the crane by the cableways. These plans, however, have not been approved, and may be changed somewhat.

In the design of the power plant, it is the idea that it will be utilized in the permanent power house to be erected, for the operation of the locks, lighting of the Canal, etc. The present plan contemplates the use of electricity—oil to be used as a fuel in the generation of this electricity. It is estimated that the little locomotives in transporting concrete from mixers to cableways will travel 181,000 miles.

Improved Laundry Service.

Employees of the Commission and of the Panama railroad may now have their family clothes, washed, starched and ironed at the Commission laundries at regular list prices, or if they prefer, the laundries will only wash and starch what is sent and return it, leaving the ironing to be done at home. The "rough dry washing" now received by the laundries includes all classes of family washing that would require starching except shirts, collars and cuffs for men and women.

Laundry work will now be collected and delivered at all points where the Department of Labor, Quarters and Subsistence maintains a delivery service, and clean laundry, when paid for at the Commissary, will be promptly delivered to quarters at Culebra, Empire, Gatun and Gorgona. The new Commissary which is to be opened at East La Boca, will have a delivery service that will give this convenience to the Ancon district. At Colon and Cristobal where the Commissary department maintains its own delivery wagons, payment by coupons may be made, when the work is delivered at the door.

New Railway Bridge at Gamboa.

Award was made on September 10th, to the Penn Bridge Company, Beaver Falls, Pa., the lowest bidder, for a single track, steel railroad bridge across the Chagres river, at Gamboa, consisting of one 200-foot riveted span and fourteen 80-foot plate girder spans. The price, $59,600, includes delivery at New York. The bridge will be erected by the Commission. Delivery at New York will begin February 1, 1908, and be completed April 1, 1908. Bidders were allowed to quote on delivery both at New York and New Orleans

The bridge is required for the new line of the Panama railroad on the east side of the Canal and is being built at this time in order to make accessible some large areas over which material removed from the Canal prism in Culebra Division can be dumped.

Land Transportation Facilities.

The Land Transportation branch of the Division of Material and Supplies is now equipped to aid construction work and the conditions of living on the Isthmus, at every point on the line of the Canal where such aid may be used to advantage. About six hundred horses and mules with all the necessary wagons, carts, ambulances and other equipment are located in corrals at Cristobal, Gatun, Tabernilla, Gorgona, Bas Obispo, Las Cascadas, Empire, Culebra, Paraiso, Corozal, Ancon, and La Boca. Each corral is under the immediate jurisdiction of a corral foreman and is subject to visitation and inspection at least twice a week by the Superintendent of Transportation and a veterinary surgeon. The present system of management provides for a daily record and report by which it is possible to know exactly what class of work has been performed by every Commission vehicle or animal, for what length of time and for what purpose.

Cost of Mule Teams.

The average number of Commission mule teams working during the first quarter of this calendar year was 217. The average number sick was 21, or 10 per cent. The cost, per month, per team, to the Commission, for those teams actually working, including all charges for labor, forage, and miscellaneous, as well as expense of sick teams was $106.48, for the above named period.

A proposal was recently received by the Commission from a contractor in the United States, who has had considerable experience in similar work in Central America, at the rate of $450 per month, per team, or over four times what it is costing the Commission at the present time.

New Steam Shovel Contracts.

Award has been made on fourteen 70-ton steam shovels, having a dipper capacity of 2½ cubic yards, seven of them to the Bucyrus Steam Shovel Company, and seven of them to the Marion Steam Shovel Company. When these shovels shall have been received there will be 85 shovels on the Isthmus. Delivery by each contractor of these shovels on the wharf at New York will begin in about sixty days after award on contract, and shovels will be delivered at the rate of one every week thereafter. Contract for six additional unloader plows has also been placed.

NOTES OF PROGRESS.

(*Continued.*)

Coal Consumption.

The amount of coal required for the Panama railroad and for the mechanical plants pertaining to the construction of the Canal has nearly doubled during the last year.

In July, 1906, the freight engines of the railroad consumed 1,025 tons, and in July, 1907, 1,267 tons. The railroad switch engines consumed 236 tons more during July, 1907, than during the same month last year. In the Mechanical Department of the Commission in July, 1906, 2,443 tons of coal were used, in June of this year, 3,4 4 tons, and in July of this year, 4,047 tons.

In the Transportation Department of the Canal work, 3,352 tons were used in July, 1906, and in July this year 7,504 tons, an increase of 4,152 tons.

The amount of coal required for all purposes has increased in about the same proportion in all branches of the Canal work. The Panama railroad handled 11,023 tons for all purposes during July, 1906, and 20,693 tons during July, 1907. This is an increase of 9,670 tons during the year.

Five Hundred New Dump Cars.

Award was made on September 3rd to the Wm. J. Oliver Manufacturing Company, Knoxville, Tenn., for the manufacture of 500 all-steel, 12-yard dump cars, contingent upon certain modifications being made in details without additional cost. The contract price amounts to $562,500. These cars will be very much needed during the coming dry season. The contractor has stated that he will ship same to the Isthmus via New Orleans

An English Tribute.

Mr. Winston Churchill, who must be regarded as a well informed authority not unduly prejudiced in favor of America, paid an impressive tribute the other day to the efficiency of American sanitation on the Isthmus of Panama. In October, 1905, he reported to Parliament there were 22,000 employees on the Canal, of whom 4,000 were non-immune; yet only one case of yellow fever occurred, and it was not fatal. By way of contrast, in October, 1884, there were 19,243 employees, of whom only 2,706 were non-immune, among whom were 84 cases of yellow fever and 21 deaths. Of course much of the credit for this improved state of affairs must be given to the general advance of the world in knowledge of germ diseases. But, as Mr. Churchill said, much must also be given to the enforcement of sanitary laws and especially of the anti-mosquito regulations by the American administrators on the Isthmus.—New York *Tribune*, Aug. 31.

President Roosevelt's Plans.

President Roosevelt will leave Oyster Bay for Washington on September 25th, where he will remain until September 29th. He will then go to Canton, Ohio, to participate in the unveiling of the monument of the late President McKinley. Afterwards he will go to Keokuk, Iowa, and board a steamer for a trip down the Mississippi to Vicksburg. Short stops will be made at St. Louis, Cairo and Memphis. After leaving Vicksburg he will return via Nashville, where a short stay will be made, and will reach Washington about October 8th.

DREDGING PLANT.

Present Capacity and Near Future Additions.

COLON DIVISION.

The Colon Dredging Division extends from the Locks at Gatun to deep water of the Caribbean. The estimated amount of material to be removed, on July 1, 1907, from this Division, was nearly 21,000,000 cubic yards, of which about 3,700,000 cubic yards consists of rock, and the rest of earth and mud. The dredging plant of the Colon Dredging Division now in operation comprises:

1 sea-going suction dredge, *Ancon*.
1 old French ladder or elevator dredge.
1 5-yard dipper dredge.
1 16-inch suction dredge.

Another 5-yard dipper dredge is under contract and will probably be put in commission early in October. A second old French ladder, or elevator dredge is now being repaired and will be put in operation in about two months.

These dredges are served by four old French self-propelling hopper barges, known as "clapets," and three steel hopper barges, which are towed to the dumping grounds. Each of these last named barges has a capacity of about 350 cubic yards. Three additional barges have been completed in the United States and should arrive on the Isthmus in the near future. The six barges last described will be towed by the tug "Gatun" and the "clapets."

LA BOCA DIVISION.

The La Boca Dredging Division extends from the Locks at Pedro Miguel to deep water of the Pacific Ocean, but does not include the lock site at Sosa. The estimated amount of material to be removed from the La Boca Dredging Division, on July 1, 1907, was a little over 15,000,000 cubic yards, of which about 765,000 cubic yards consist of rock and the rest of earth and mud. The dredging plant of this Division now comprises:

1 old French ladder or elevator dredge.
1 5-yard dipper dredge.

The sea-going suction dredge "Culebra" is being tested at Sparrows Point, Md., near Baltimore, and when accepted, will start on her long journey to Panama via Cape Horn under her own steam, where, if all goes well, she should arrive early in January, 1908. A second old French ladder dredge is being repaired, and will probably be put in commission about September 20, 1907. The dredges at La Boca will be served by seven old French self-propelling hopper barges, known as "clapets," and by three steel hopper barges of about 350 cubic yards capacity, which will be towed to the dumping grounds by "clapets." The hopper barges are under contract but will not arrive on the Isthmus for several months. The dredging fleet, as a whole, will be of considerably increased capacity by January, 1908.

Resignation of W. G. Bierd.

W. G. Bierd, Assistant to the President and General Manager of the Panama Railroad Company, has resigned on the ground of ill-health. His resignation has been accepted and is to take effect in time for him to reach the States by October first. It is understood that he will in the near future enter upon a position of importance on the New York, New Haven and Hartford Railway Company, under John F. Stevens, late Chairman and Chief Engineer of the Isthmian Canal Commission.

The Isthmus To-Day.

Dr. Glen Gilbert, an Englishman, who was a practising physician in this city for many years prior to the Boer war, and left at that time to become a surgeon in the British army, returned yesterday from a trip around the world.

Dr. Gilbert arrived here on the steamship *Momus* from New York, having gone there from Panama in returning via San Francisco and the Pacific coast route from Yokohama, after spending six months touring in Japan.

In speaking of his trip to Panama, Dr. Gilbert mentioned that he had been a surgeon for the canal company during the French regimé. He stated that there was no comparison between the present conditions on the Isthmus and what it was then. He commented most favorably upon the sanitation of Colon and Panama, and said that he had not seen a mosquito while on the Isthmus, and that everything was as clean as a new pin. This was in most agreeable contrast to the conditions when he was in the French service and deaths from fever were daily occurrences. The surgeon said that he believed he could agree with the assertion that in those times it cost a man's life for every tie which was laid on the Panama railroad. He congratulated the American Government upon its magnificent work, and said he hoped it would continue all along the Central American coast.—New *Orleans Times-Democrat, Sept. 6, 1907.*

The average cubic yards loaded by each steam shovel in the Culebra Division in July was 1,439 cubic yards more than in June.

TYPHOID FEVER AND MALARIA.

Circular of Information Concerning Them.

TYPHOID FEVER.

Typhoid fever is caused by a small plant that gets into the human intestine and there produces a poison that causes the fever. The typhoid plant is scientifically known by the name of "Typhoid Bacillus." This plant is smaller than the point of a needle and the use of a very high power microscope is necessary to see it.

Typhoid fever is communicated only from one man to another by this plant passing from a man sick with typhoid fever into the stomach of a well man. This comes about, generally, through the water one drinks. The stools or urine of a man with a mild case of typhoid fever or one just beginning to have typhoid fever are passed on the ground, the rain washes these into the nearest stream and the man drinking from this stream drinks the typhoid plant and thus becomes infected.

If all drinking water is boiled, the Typhoid Bacillus is killed, and the water becomes safe; if the watershed of a reservoir is so cared for that no typhoid organism can get into it, it is also safe. All the water used in our water systems comes from such reservoir and can be drunk with safety, but most of the steams near the line of the canal, particularly those streams from Pedro Miguel to Bas Obispo, receive the washings from the country thickly occupied by our laborers and are therefore very unsafe and apt to give typhoid fever.

Typhoid fever can also be communicated by flies, which have been about a contaminated privy or locality, thus getting the typhoid organisms on their legs, and then alighting on food which is being eaten by man; or can be communicated in many of the hundreds of ways in which the organism can get on the hands and thus be transmitted to food.

To avoid typhoid fever, it is advisable, therefore, to drink boiled water when practicable, or drink water from the water taps furnished by the Commission—these taps all bring water from a carefully protected water shed. Avoid drinking water from streams along the Canal, particularly those streams which come from an occupied watershed; always wash the hands with soap and water before eating; protect the food as much as possible after it has been cooked from contamination from flies; use a privy, when possible, both for urinating and defecation, so as to avoid contaminating the ground near where men are working.

MALARIA.

Malaria is caused by a small animal which gets into the blood and there secretes a poison, which causes the fever. This animal can only live in men or in a mosquito; if it gets into other surroundings, it dies, and it can only live in one particular kind of mosquito, the Anopheles. The mosquito to become infected has to bite some man who has malaria—only the female mosquito bites. A mosquito in biting first injects her saliva into the wound before she draws the blood; with her saliva she injects the minute animal that causes the fever. The little animal multiplies very rapidly as soon as it gets into the human blood, secretes its poison, and in a few days causes the fever.

To avoid malaria, therefore, you should avoid being bitten by an infected Anopheles mosquito. Live in a screened house; always use a mosquito bar at night. The malaria mosquito is a night mosquito and bites principally after dark, therefore, expose yourself as little as possible to the bites of the mosquitoes at night.

This particularly applies to the native villages. As most of the natives have malaria, mosquitoes biting them become infected, therefore, a man who is bitten by an Anopheles mosquito in a native village is much more apt to have fever than if bitten by an anopheles out in the country away from any habitation.

Quinine is a substance which is deadly poison to the malaria animal, but not poisonous to man, therefore, take about three grains of quinine every day. This quinine rapidly gets into the blood and does no harm to man, but if a malaria mosquito happens to inject the malaria animal into this man's blood, the animal is at once killed and does no harm to the man.

W. C. GORGAS,
Chief Sanitary Officer.

OFFICIAL CIRCULARS.

Sick Leave Regulations.

CULEBRA, July 25, 1907.

Circular No. 132 A.

The following will be the method of computing sick leave in all cases:

Sick leave will be based on the service year instead of the calendar year.

An employee will be entitled to fifteen days sick leave with pay for each six months' of service, dating from the beginning of the service year as determined below. Such sick leave will be cumulative during the employees entire service, but no more than thirty days will be granted in any service year.

The service year, for the purpose of computing sick leave, will be calculated as follows:

(1) For employees appointed in the United States who were entitled to sick leave prior to April 1, 1907, and who have had no change in their status since that date: Upon reporting from vacation after July 1, 1907.

(2) For employees whose status was changed on or after April 1, 1907: From effective date of change of status.

(3) For all employees appointed on the Isthmus and entitled to sick leave prior to April 1, 1907: From April 1, 1907.

(4) For employees who were not on April 1, 1907, accorded sick leave privileges: From April 1, 1907.

(5) For employees who entered the service April 1, 1907, or subsequent thereto: From effective date of employment.

In all cases under (1) sick leave will be granted in accordance with contract of employment until beginning of service year provided above for such employees.

For hourly employees, 120 hours will be the equivalent of fifteen days.

GEO. W. GOETHALS,
Chairman.

New Half-Rate Request Blanks.

The new half-rate request blanks were put into use Monday the 16th instant. These forms are made up in books, 100 to each book. Form 121 C. E. (on white paper) is for first-class tickets, and form 122 C. E. (on colored paper) for second-class tickets. These books will be supplied, on request, from the Chairman's office. The following instructions will govern their use:

1. Employees of the I. C. C. or members of their families may be granted the half-rate privilege at any time.

2. The half-rate on second-class tickets may be granted to employees of all grades.

3. The half-rate on first-class tickets will be limited to employees above the grade of laborers, and be subject to the proper discretion of the official authorizing such half rate.

4. It is desired that the following procedure be adhered to as closely as possible in granting these requests: As soon as a book is issued to any official authorized to sign such halfrates, his name will be stamped in the first blank space on the top. Upon request of an employee for half rate he will be furnished one blank, which he will fill out, sign, and return to the official whose name is stamped thereon, for countersignature. This official must have positive knowledge that the persons for whom the half rate is requested are entitled to same.

5. The identity of persons to whom tickets are to be issued must be shown, as for instance: For "myself and wife;" For "wife and two children," etc.

6. Requests must be presented to ticket agents, who will issue tickets at half fare. Conductors of trains will not honor these requests, except from points where no ticket agent is stationed. In such cases, if return passage is wanted, one blank will be necessary for each direction, crossing out the words "and return."

7. The misuse of these request blanks by officers or employees is punishable by dismissal from the service, and Heads of Departments and Divisions must keep an accurate record showing the number of each book received and to whom issued for use.

GEO. W. GOETHALS,
Chairman.

CULEBRA, C. Z., Aug. 21, 1907.

CIRCULAR No. 139:

Hereafter there will be but one payment per month for both gold and silver employees, including all laborers.

This change will become effective October 1, 1907, and payment for that month will be made on the first scheduled pay day in November.

[Sgd.] GEO. W. GOETHALS,
Chairman.

OFFICIAL CIRCULARS.

(*Continued*)

CULEBRA, C. Z., Sept. 1, 1907

HEADS OF DEPARTMENTS AND DIVISIONS:

The adjustment of accounts between the P.R.R. and I.C.C., particularly for commissaries, is seriously delayed, owing to laxity on the part of officers and employees in not promptly and carefully signing receipts and invoices for same.

Effective this date, therefore, the following instructions will govern in the matter of receipting to the commissary department for supplies furnished to departments and divisions of the I. C. C.:

1. Exceptions to shipments which are accompanied by a bill or packing list must be made within 48 hours after receipt of the shipment; otherwise the consignee will be charged with, and must accept invoice for, the supplies shown on such bill or list.

2. In case an entire shipment is lost and consignee receives no notice of shipment, he will not be held responsible for same, except in the case of shipments delivered periodically, as of ice, bread, etc., when exceptions for shortage or non-receipt must be made within 48 hours to secure credit for same.

3. Invoices for the commissary department must be carefully accomplished, in a manner that will be accepted without question by the Treasury Department, and return without loss of time.

GEO. W. GOETHALS,
Chairman, and Chief Engineer

Care of Cold Storage.

A few suggestions to purchasers of cold storage meats and fowls, which, if carefully followed, will insure the product, when cooked, being sweet and wholesome:

The method employed by the Commissary in the handling of cold storage goods makes it absolutely impossible for any meats or fowls to become tainted after leaving the plant, if even ordinary care is exercised by the purchaser. The warm atmosphere can not, under the system of handling in operation, come in contact with the goods until they are unloaded out of the cars at destination; and there is very little chance there for the air to come in contact with the meat, in that the goods are carefully wrapped and placed in covered baskets, which are not opened until the package is to be delivered at the quarters of the purchaser.

Fowls of all description, liver, veal and lamb should not be permitted to stay out of the refrigerator any longer than is absolutely necessary to place it there, and this quality of meat will not stay sweet for any great length of time after it is exposed to the warm atmosphere always prevailing in this climate. This meat is thoroughly frozen in the refrigerator, but as soon as the warm atmosphere is allowed to come in contact with it, the frost is drawn from the meat, causing the surface thereof to become damp; and, if not kept in a cool place, it sours easily.

In the handling of beef it is not necessary to employ so much care, but, to insure the meat being sweet and wholesome, it should be placed in the refrigerator as soon as it is delivered to quarters.

Fowls may be washed in a light solution of salt water or soda and water. Roast or boiling pieces may be treated in a like manner, but under no circumstances should steaks or chops be washed. If it is found that the goods are damp and have a slimy appearance, this can be scraped or wiped off, and this process will cause the meat to be sweet when cooked. This dampness is no indication of bad meat. As above explained, it only means that the frost is being extracted from the meat by its contact with the warm atmosphere, and if allowed to remain out too long will sour.

If through oversight on the part of the purchaser the meat is not properly taken care of as above directed, and becomes sour; a slight trimming is all that is necessary to remove the trouble.

There is an impression in the minds of some people that cold storage meats are not wholesome, which impression is erroneous. In fact, there is very little meat used in the United States that is not put in cold storage, and it adds to the quality and wholesomeness of the meat to chill it prior to use. This applies to all varieties of meats; and, by a little care on the part of those buying meats from the cold storage, the people on the isthmus can have as good and wholesome meat as can be purchased in the city of New York or elsewhere.

Marines to Remain at Camp Elliott

It was recently recommended by the commanding officer of the Marine Battalion that new Marine barracks be erected on a site selected on the Sabanas road, about one mile and a half from the railroad station in Panama, large enough to accommodate four companies or a full battalion. A special committee appointed to consider the advisability of adopting this procedure, which committee consisted of members of the Commission and Marine officers, made its report in July. After making a thorough examination into all the facts bearing on the subject, the majority of the committee recommended that for strategic and other purposes the camp be retained at Bas Obispo for the present. The site recently selected on the Sabanas road was found to be not sufficiently large to accommodate the garrison proposed. The committee further recommended that the accommodations at Camp Elliott be made sufficient to comfortably care for the officers and men stationed there.

This report of the committee has received the approval of the Secretary of War.

Commissary Prices.

For week ending Sept. 15;

FRESH MEATS		*Price* CTS.
Mutton, entire forequarters	per lb	10
Mutton, short-cut chops	do	19
Mutton, leg	do	17
Lamb, for stewing	do	11
Lamb, entire forequarters	do	11
Lamb, short-cut chops	do	27
Lamb, legs	do	24
Beef, sirloin, roast	do	18
Beef, rib roast, short cut	do	17
Beef, rib roast, second cut	do	15
Beef, chuck roast	do	12
Steaks, Porterhouse	do	23
Steaks, sirloin	do	21
Steaks, rump	do	23
Steaks, tenderloin	do	22
Steaks, round	do	12½
Beef, corned	do	10, 12, 14
Beef, soup	do	7
Beef, stew	do	10
Veal, cutlets	do	21
veal, short-cut chops	do	20
Veal, loin	do	12
Veal, entire forequarters	do	9
Veal, for stewing	do	8
Pork, cuts	do	20
Sausage, pork	do	17
Livers Beef	*do*	9
Frankfurt sausage	do	17
Ham, Sugar Cured Sliced	do	§25
Livers, Calf	each	60
Sweet breads, Veal	per lb	1.20
Sweet breads beef	do	25
Ham, ½ (for boiling)	do	§20
Bacon, English breakfast, sliced	do	§26
POULTRY AND GAME		
Chickens, dressed, (milk fed)	each	$1.40
Fowls	do	1.20
Capons, Philadelphia	do	2.40
Ducklings	do	1.45
Turkeys	per lb	26½
Broilers, frys (chicken)	each	65
Eggs, fresh	per dozen	29
Oyster, ½ gal. kegs	each	70
DAIRY PRODUCTS.		
Butter, prints, prime quality	per lb	34
Cheese, cream	each	22
Cheese, Neufchatel	do	6
Cheese, Camembert	do	28
Cheese, Roquefort	per lb	45
Cheese, Young America	do	22
Milk, Briarcliff Farm	per quart	*25
FRUITS AND VEGETABLES		
Lemons	per dozen	15
Pineapples	each	10
Oranges	per dozen	15
Apples	per lb	6
Limes	per hundred	30
Bananas	per dozen	5
Peaches	per lb	12
Celery	per bunch	22
Cucumbers	per lb	5
New potatoes	do	3
Sweet do	do	2¼
Cabbage	do	3
Lettuce	do	7
Onions	do	3
Grapes	per 2 lb. basket	25
Watermelons	each	25
Cantaloupes	do	8
Pears	per lb	10

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* Indicates 5 cents allowed for return of bottle.

§ Sold only from Cold Storage and not from Commissaries.

August Rainfall for Three Years.

Station	1905	1906	1907
Cristobal	15.01	18.31	18.89
Brazos Brook	.....	16.25	17.89
Gatun	24.12	......	16.37
Bohio	15.78	9.02	9.10
Gamboa	11.58	11.33	12.69
Alhajuela	13.24	26.10	10.67
Empire	11.38	12.24	11.24
Comacho Dam	.	12.02	12.17
Culebra	...	12.97	11.81
Rio Grande	11.55	12.61	11.41
La Boca	. ...	7.53	8.63
Ancon	5.31	6.43	7.46
Naos Island	.	5.89	6.55

Taking the average work done during the past seven months, using air as the motive power, the drills have averaged 28 feet of hole each, per 9-hour shift, as against 27 feet per machine when the drills were driven by steam.

SPORTS AND GAMES.

No License Fee for Baseball.

At a meeting of the Isthmian Canal Commission on August 31st, the Chairman presented a letter addressed by the secretary and treasurer of the Empire Athletic Association to the Head of the Department of Civil Administration relative to subsection 2, under section "I" of section 7, of the regulations providing for certain taxes and licenses in the Canal Zone, approved May 17, 1907, which reads as follows:

"Section 7, ('I') (2.) Minstrel, musical, variety, athletic, and all other similar shows or exhibitions given under canvas or within an enclosure, $5 for each performance or exhibition."

Under this section the Empire Athletic Association and other associations formed for the purpose of promoting baseball are required to pay a tax of $5 for each game of baseball played on their grounds. Inasmuch as it is the policy of the Commission to encourage healthful amusement and recreation for employees of the Commission, and as it is not desired to tax the individual efforts of employees in this direction, on motion, it was

Resolved, That subsection 2, under "I." of the regulations providing for certain taxes and licenses in the Canal Zone, other than for the sale of intoxicating liquors, be amended by striking out the word "athletic," so that amended it will read as follows:

"Section 7 ('I') (2). Minstrel, musical, variety, and all other similar shows or exhibitions given under canvas or within an inclosure, $5 for each performance or exhibition."

Gorgona Club.

Schedule for week from September 16 to September 22:

MONDAY, SEPTEMBER 16.

7:30 to 8:30—Library committee; game room.

8 to 10—Local bowling tournament; No. 1 vs. No. 5.

8 to 10—Orchestra in hall; Mr. Jennings in charge.

8:15 sharp—Council meeting; committee room.

TUESDAY, SEPTEMBER 17.

2:30 to 4:30—Open house to women; Women's club meeting.

7 to 8:30—Fencing; committee room; Mr. Montavain in charge.

7 to 8—Boxing and wrestling club; wrestling night; hall; Mr. Drexel.

8 to 10—Local bowling tournament; No. 2 vs. No. 3.

8 to 9:30—Spanish class.

WEDNESDAY, SEPTEMBER 18.

7 to 8:20—Gymnasium class, hall; Mr. Ferris in charge.

8 to 10—Local bowling tournament; No. 4 vs. No. 6.

8 to 9—First aid to the injured. Dr. Macy in charge.

THURSDAY, SEPTEMBER 19.

2:30 to 4:30—Open house to women; Women's club meeting.

8:15 sharp—Mr. Thomas McClary; fourth lyceum entertainment; subject, *The Mission of Mirth*; admission, 50 cents gold; members free; open house.

FRIDAY, SEPTEMBER 20.

7 to 8:15—Gymnasium class; hall; Mr. Ferris in charge.

8 to 9:30—Spanish class.

8:15 to 9:30—Cricket club; committee room.

SATURDAY, SEPTEMBER 21.

Two big contests. *8 sharp*—Zone bowling league, *Gorgona vs. Cristobal*. First big basket-ball game, *Cristobal vs. Gorgona*; Wm. Baxley, referee; G. Gustavson, umpire. Open house, white public invited.

SUNDAY, SEPTEMBER 22.

3:30—Address to men only, auspices of the Sunday club; Col. W. C. Gorgas, speaker; subject, *Precautions to be observed for avoiding diseases incident to the Isthmus*; music by the I. C. C. Band; brass quartette, and solo. All white men are invited.

Messrs. Bergin and Prescott will lecture on Tuesday, September 24; subject, *Old Days on the Panama Railroad*

BUILDING OPERATIONS.

Statement of Buildings Repaired and Constructed, Demolished, Remaining and Totals, from July 1, 1906, to July 1, 1907.

Town or Railroad Station	Number on hand July 1, 1906.	Number previously repaired.	Number repaired this year.	Number destroyed	Balance to be repaired.	Number previously constructed.	Number constructed this year	Class of construction	Number on hand July 1, 1907
Palo Seco							8	Hospital	8
Taboga	8	1	1		6		1	Hospital	9
Naos	3	1			2		1		3
Flamenco	2					2			2
Farfan	3				3				3
La Boca	67	29	7	2	18	11	24	21 quarters 1 storehouse 1 Fire Dept. bldg. 1 mess hall	89
Panama City	4	3				1			4
La Section	24	7	1	1	15	1			24
Ancon	116	46	19	1	25	25	60	45 quarters 1 mess hall 4 hospitals 1 jail 1 Fire Dept. bldg. 1 chapel 2 offices 1 hotel 4 miscellaneous	175
Las Sabanas							1		1
Corozal	36	25	6			5	18	16 quarters 2 mess halls	54
Rio Grande Interior	7				7				7
Butte Cardenas	2				2				2
Excluse 10	13				13				13
Miraflores	31	28			3				31
Pedro Miguel Tank	21	7			14				21
Excluse 9	11				11				11
Pedro Miguel	30	9		3	9	9	24	15 quarters 3 storehouses 3 offices 1 Fire Dept. bldg. 1 mess hall 1 car-repair shed	51
40-Mile Siding	21	20				1	9	9 quarters, etc	30
Kilo 58,600	3				3				3
Excluses 7 and 8	1				1				7
Excluse 6	7				7				7
Paraiso	97	51	6	4	22	14	43	39 quarters 1 mess hall 1 hospital 1 commissary 1 Fire Dept. bldg.	136
Carthagenera	24	22			2		8	8 quarters	32
Excluse 7	7				7				7
Cucaracha	31	24	1	1	5		9	7 quarters 1 mess hall 1 storehouse	39
Enterprise	42	1	1	23	9	8	13	13 quarters	32
Rio Grande	9	4	2	1		2	25	24 quarters 1 corral	33
Cerro Germain	11	5	3			3	6	3 quarters 1 shop 1 storehouse 1 mess hall	17
Cerro Lirio	40	35	5						40
Culebra	147	74	6	7	12	48	67	55 quarters 3 storehouses 1 band stand 1 club house 1 lodge hall 1 fumigation bldg. 1 school house 1 hospital add'n. 1 lockup 1 hotel laundry 1 Fire Dept. bldg. 1 shop	207
Lirio	29	27				2	5	3 quarters 1 office	34
Cerro	23	21				2	3	3 quarters	26
Empire	108	57	7	3	24	17	63	18 quarters 1 jail 4 offices 1 mess hall 1 club house 1 Fire Dept. bldg. 1 elec. lt. plant bld. 1 hotel laundry 1 fumigationhouse 3 storehouses 1 ice platform	168
Cunette	60	17	2	6	5		9	9 quarters	63
Casa Blanca	17	20	16	11			3	3 quarters	39
Las Cascadas	58	40	13	3	2		43	5 shops 33 quarters 1 hotel laundry 1 mess hall 1 office 2 miscellaneous	98
Buena Vista	49	30	13	1	5		2	2 quarters	50
Haut Obispo	59	53	4	1		1	11	10 quarters 1 storehouse	69
Bas Obispo	70	22	23	7	12	6	3	1 jail 1 stable 1 commissary	66
Alhajuela	12	1	1	5	5		1	1 quarters	8
Cruces	5				5				5
Las Delicias	5				5				5

Building operations—Continued.

Town or Railroad Station	Number on hand July 1, 1906.	Number previously repaired	Number repaired this year.	Number destroyed.	Balance to be repaired.	Number previously constructed.	Number constructed this year	Class of construction	Number on hand July 1, 1907.
Gamboa	27	20	2	5			12	11 quarters 1 mess hall	34
Chagres	25	20			5		8	8 quarters	33
Santa Cruz	61		43		18		1	1 quarters	62
Matachin	13	2	5	2	4		2	1 quarters 1 jail	13
Bas Matachin	68	27	7	1	12	21	15	11 quarters 4 shops	82
Kilometer 43,200 Kilometer 44,000	11				11				11
Kilometer 1,000	11				11				11
Gorgona Campment.	36	31	1			4	40	30 quarters 1 jail 1 mess hall 4 storehouses 1 hotel laundry 1 band stand 1 club house 1 Fire Dept. bldg.	76
Enterprise	40	8	13	8	11				32
Kilometer 41,600	4				4				4
Caballo Viejo	18	10	4		4		11	11 quarters	29
Juan Grande	12		10	2			5	4 quarters 1 mess hall	15
Mamei	8	6	2				6	5 quarters 1 mess hall	14
Culo Seco	5				5				5
Excluse 2	2				2				2
Coca Lane	18				18				18
Caimito Mulato	26				26				26
Enterprise	14				14				13
San Pablo	58	3	7	8	40		2	1 quarters 1 jail	52
New Town	2				2				2
Barbacoas	7				7				7
Tabernilla	25	22	2			1	34	28 quarters 1 jail 2 mess halls 1 office 2 storehouses	59
Ex Enterprise	16	14		2					14
Sin la Voie du Kil. 29.	6		5	1			1	1 cook shed	6
Chagres	12				12				12
Frijoles	2	2					1	1 cook shed	3
Chagres	33				33				33
Bohio	47	16	4		27				47
New Town	1				1				1
Derivation 4	5				5				5
Excluse 1	18				18				18
Derivation 3	3				3				3
Penas Blancas Arriba	3				3				3
Penas Blancas Q. L.	7				7				7
Vamos Vamos	1				1				1
Gatun	5	1			4		92	73 quarters 1 jail 2 mess halls 8 storehouses 3 offices 1 hospital 4 miscellaneous	97
Mindi	3				3				3
Mount Hope	20	5	2		12	1	4	1 jail 2 quarters 1 boiler house	24
Cristobal and Fox River	249	121	8	5	96	19	74	61 quarters 2 hospitals 3 storehouses 1 jail addition 1 Fire Dept. bldg. 2 shops 1 club house 1 lodge hall 1 office 1 band stand	318
Totals	2265	1018	252	113	678	204	767		2919

MECHANICAL DEPARTMENT.

Some of the Principal Items of Work Done During the Fiscal Year.

Work.	Gorgona.	Empire.	Paraiso.	Cristobal.	Elect. Sub. Div	Air Com. Pl'nt.
Locomotives repaired in shops	20	23	13			
Locomotives, running repairs	1,159	893	4,110	180		
New locomotives erected	89			13		
Cars erected				109		
Cars repaired	10,086	872	14,206	305		
Work equipment erected	13	11		7		
Work equipment repaired	803	284	360	30		
Steam shovels repaired in shops		11	5			
Steam shovels, running repairs		750	144	5		
Steam shovels erected		22				
Locomotives cared for nights	1,644	17,155	12,755			
Air compressors installed						8
Dynamos installed					3	
Buildings wired					250	
Lights installed					3,566	
Manufactured iron castings	3,599,703					
Manufactured brass castings	202,425					
Manufactured patterns, castings	1,780					

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Lights for Tivoli Road.

THE CANAL RECORD:

It is respectfully suggested to the proper authorities by means of your valued publication, that the public (pedestrians in particular) would be much benefited by the installation of a few oil lamps fixed on judiciously-placed posts along the road leading from Panama railroad station to Tivoli Hotel. Such lamps, lighted at night, would materially add to the comfort and safety of persons having occasion to use that thoroughfare and would minimize the hazard of vehicle accidents.

WALTER J. HENNESSY.

Ancon, Sept. 9, 1907.

[An order has been placed in the States for a powerful electric arc light, which will be placed near the two flag poles on the road leading to the Tivoli Hotel, which is the boundary between the Canal Zone and the Republic of Panama.]

Zone Army and Navy Union.

THE CANAL RECORD:

Having received a copy of THE CANAL RECORD, wish to ask you if you can favor me by publishing the following:

Mr. L. E. Herman having been appointed Assistant Inspector General of the Regular Army and Navy Union of the United States of America, wishes to announce that he intends to start a garrison in the Canal Zone for those who served as regulars in the Army, Navy and Marine Corps for a period of more than ninety (90) days. Information requested will be gladly given. He is now located at Empire, Canal Zone.

LESTER E. HERMAN,
Disbursing Office.

Empire, Sept. 7.

An Elk Club for the Isthmus.

THE CANAL RECORD:

I would thank you to insert the following:

It is desired to organize an Elk Club on the Isthmus, and with that intent in view, it is requested that all members of the Benevolent Protective Order of Elks kindly send name and address to

R. M. DAVIES,
Office of Examiner of Accounts.

B. P. O. E. No. 14, Chicago, Ill.

Empire, Sept. 12, 1907.

"The Record" for Panama Railroad Employees.

THE CANAL RECORD:

I see by THE CANAL RECORD that you send the paper to all I. C. C. employees. There are several of us working for the Panama railroad here that would like to have your paper and would like to know if we are entitled to it. Thanking you in advance, I am,

R. B. SEABORN,
Machinist, P. R. R. Shops.

Cristobal, Sept. 9, 1907.

[A copy of THE RECORD will be sent to each employee on the gold roll of the Panama Railroad Company.]

A Card from Mr. de Senan.

THE CANAL RECORD:

I wish to state to the readers of THE RECORD that I had nothing to do with the letter written by Carl L. Reisinger to the Baltimore *Sun*, and copied in THE RECORD of September 11th. EDGAR H. de SENAN.
Manager, Culebra Hotel.

Culebra, Sept. 12, 1907.

A Steam Shovel Man's View.

(*From a letter in the "Steam Shovel and Dredge," of Chicago, August, 1907.*

We have nicely furnished rooms with baths, electric light, and toilet rooms, and the board is exceptionally good. In fact, everything is done to make it as pleasant as possible for the men, and I have not seen a man that was not satisfied; as for myself, I like it very much. This is a pretty town. I am stationed at Culebra, which is the largest and deepest cut on the Canal. It is forty miles south of Colon and is only eight miles from Panama city, which is the Pacific entrance to the Canal. There are twenty-eight shovels in this one cut. It is a great sight to see so many working in one place at the same time. Some of the shovels are 200 feet above the others The first week I was here I was on a shovel that was on the top lift, and you could look down the smokestacks of a dozen other shovels below you.

Culebra has a population of about 2,000 people—all government employees. The town is laid off in terraces and graded with streets and sidewalks. The buildings are large and new, with mosquito netting from top to bottom. However, they do not need the netting, as the mosquitoes have all been killed a year ago. I have not seen one since I came. The nights are cool—in fact, you have to sleep under a blanket. The days, however, are very warm.

A great many of the steam shovel men have their families with them, and if I stay on this job I intend to have my family come here just as soon as I can get a house.

There is a great demand for houses here, and it is hardly probable that I can get one for several months. At the present time they are building houses on two new streets. These houses would rent for $50 per month in most of the cities in the States. These are the houses they give the married men, fitted up nicely with baths and electric lights, free of charge.

Things in the commissary are about as cheap as they are in the States. Everything in the commissary has to pass an inspection, so, as a general thing, you get good stuff out of it.

We have a Local Lodge, No. 19, of the International Brotherhood of Steam Shovel and Dredge Men, which has elected Mr. Bates as president.

Fraternally yours,
A BROTHERHOOD MAN.

Concert.

By the I. C. C. Band at Gorgona, C. Z., Sunday, Sept. 22, 1907, at 2 p.m.:

PROGRAM.

1 March.................Chateau Gontier....Fischlin
2 Overture ....*Raymond* ....Thomas
3 Waltz..... ....*Blue Danube*......... Strauss
4 Intermezzo ....*Starland* ....O'Connor
5 Duet for cornets...*The Nightless Land* .... .Pinsuti
MESSRS. TRAUB & LEORES.
6 Two Step..... ......*Panama Rag*...... Seymour
7 Idyl.................. ...*Mill in the Forest* Eilenberg
8 Medley, selection. *Remick's Hits*........ Lampe
9 Descriptive ....*Cavalry Charge*..... Luders
SYNOPSIS—Morning of the battle; infantry heard approaching with fifes and drums; cavalry in the distance, coming nearer and nearer until they charge upon the enemy; cavalry, infantry and artillery in the melée of battle; defeat of the enemy, pursued in the distance by the cavalry.
10 March..................*La Fiesta*...........Roncoveri

CHAS. E. JENNINGS,
Musical Director.

The next concert will be given at Culebra, Sunday, September 29.

The Independent Order of Panamanian Kangareos wlll give a social and costume dance at the Y. M. C. A., Empire, October 5, 1907. A valuable prize will be given to the lady and to the gentleman appearing in the most original costume. All costumes must be of cotton or calico. Special train service.

Dump-Ground Records.

The following is a statement of the amount of material handled from the Culebra Cut at the different dump grounds during the month of July:

La Boca..........	90,510 cu. yds., or	12 %
Sosa-Corozal dam.....	42,714 cu. yds., or	5½%
Corozal......................	62,389 cu. yds., or	8 %
Pedro Miguel............	32,240 cu. yds., or	4½%
At inside dumps from Paraiso to Bas Obispo......	210,698 cu. yds., or	28 %
Gorgona	15,673 cu. yds., or	2 %
Juan Grande.............	48,106 cu. yds., or	6½%
Mamei......	33,471 cu. yds., or	4½%
Tabernilla..................	218,363 cu. yds., or	29 %

This table shows that there is still being dumped on the inside or those dumps close to the Division, the largest per cent of the excavated material, the dumps north of Bas Obispo taking only 42 per cent of the total output.

Panama Lodge No. 1, Knights of Pythias, Chancellor Commander Captain J. M. Nicholson, meets every Saturday night at the Cristobal lodge room. Empire Lodge, No. 2, P. F. Maher, chancellor commander, meets every Tuesday night in the Municipal Court building. Culebra Lodge, No. 3, M. C. Nolan, chancellor commander, meets every Wednesday night in the lodge room at Culebra.

PANAMA RAILROAD COMPANY

TIME TABLE No. 19

TAKING EFFECT APRIL 1st, 1907

SOUTH BOUND			Distance from Colon	MAIN LINE	Distance from Panama	NORTH BOUND			
No. 7 Pass.	No. 5 Pass.	No. 3 Pass		S Stop F Flag Station		No. 2 Pass.	No. 4 Pass.	No. 6 Pass.	No. 8 Pass.
Daily	Daily	Daily		STATIONS		Daily	Daily	Daily	Daily
Leave	Leave	Leave	Miles		Miles	Arrive	Arrive	Arrive	Arrive
P. M.	A. M.	A. M.				A. M.	P. M.	P. M.	P. M.
4.35	8.50	5.25	00	† COLON..........	47.65	9.05	12.30	3.20	8.00
s4.37	s 8.52	s5.27	0.42	Cristobal...........	47.23	s9.03	s 12.27	s3.17	s7.57
s4.43	8.58	s5.33	1.90	Mount Hope.....	45.75	s 8.58	12.22	3.12	s7.52
f4.48	9.04	f5.39	4.52	Mindi................	43.13	f8.50	12.15	3.05	f7.45
							P. M.		
s4.55	s 9.10	s5.45	6.96	† Gatun.............	40.69	s8.43	s 12.10	s3.00	s 7.40
f5.03	f 9.18	5.53	10.62	Lion Hill...........	37.03	8.33	f 11.59	2.49	f 7.29
f5.08	f 9.23	5.58	12.73	Ahorca Lagarto	34.92	8.27	f 11.53	2.43	f 7.22
s5 15	s 9.30	s6.05	15.50	† Bohio	32.15	s8.20	s 11.45	s2.35	s7.15
s5 23	s 9.38	6.13	18.73	† Frijoles...........	28.92	s8.10	f 11.36	2.28	s7.06
s5.31	s 9.46	s6.21	21.60	† Tabernilla	26.05	s8.03	s 11.28	s2.20	s6.58
5.35	9.50	6 25	22.82	Barbacoas	24.83	8.00	11.24	2.17	6.55
s5.37	s 9.52	s6.27	23.54	San Pablo..........	24.11	s7.58	s 11.22	2.16	s6.53
f5.40	f 9.55	6.30	24.55	Bailamonos	23.10	7.54	f 11.18	....	f6.50
s5.45	s 10.00	s6 35	26.00	† Mamei.............	21.65	s7.50	s 11.15	2.10	s6.47
s5.53	s 10.09	s6.44	28.65	† Gorgona..........	19.00	s7.41	s 11.07	s2.02	s6.37
s5.58	s 10.14	s6.49	30.02	† MATACHIN...	17.63	s7.36	s 11.02	1.57	s6.32
s6.03	s 10.19	s6.54	31 38	† Bas Obispo......	16.27	s7.32	s 10.58	s1.53	s6.27
s6.09	s 10.26	s7.00	32.95	† Las Cascadas..	14.70	s7.26	s 10.52	s1.47	s6.21
s6.17	s 10.35	s7 08	35.30	† Empire	12.35	s7.18	s 10.45	s1.40	s6.14
s6.22	s 10.40	s 7.13	36.30	† Culebra	11.35	s 7.13	s 10.40	s1.35	s6.10
6 25	10.43	f7.16	37.54	Rio Grande Sup.	10.11	f7.07	....	....	f6.03
6.30	10.48	7.21	39.16	Cucaracha	8.49	7.03	10.27	1.26	5.57
s6.32	s 10.50	s7.23	39 63	Paraiso.............	8.02	s7.01	10.26	1.25	f5.56
s6.37	s 10.56	s7.28	40.79	† Pedro Miguel..	6.86	s6.57	s 10.22	s1.23	s5.52
6.39	10.58	7.31	41.33	Pedro Miguel Tk	6.32	6.55	10.20	1.20	5.50
s6.42	s 11.01	s7.33	42.15	Miraflores.........	5.50	s6.53	10.18	1.18	s5.48
s6.50	s 11.08	s7.40	44.62	† Corozal	3.03	s6.45	s 10.10	1.10	s5.40
6.55	11.13	7.45	46.82	† La Boca Junct.	0.34	6.38	10.03	1.03	5.33
7.00	11 18	7.50	47.65	† PANAMA.......	.00	6.35	10.00	1.00	5.30
P. M.	A. M.	A. M.		† *Telegraph Stations*		A. M.	A. M.	P. M.	P. M.
Arrive	Arrive	Arrive				Leave	Leave	Leave	Leave

LA BOCA BRANCH

SOUTH BOUND—Daily					STATIONS	NORTH BOUND—Daily				
No. 41	No. 39	No. 35	No. 33	No. 31		No. 32	No. 34	No. 36	No. 40	No. 42
Leave	Leave	Leave	Leave	Leave		Arrive	Arrive	Arrive	Arrive	Arrive
P. M.	P. M.	A. M.	A. M.	A. M.		A. M.	A. M.	A. M.	P. M.	P. M.
5.50	5.10	11.10	7.30	5.55	LA BOCA.......	5.50	6.50	8.00	12.50	5.35
6.00	5.20	11.20	7.40	6.05	PANAMA.......	5.40	6.40	7.50	12.40	5.25
Arrive	Arrive	Arrive	Arrive	Arrive		Leave	Leave	Leave	Leave	Leave

LABOR TRAINS—Daily Except Sunday.

No. 25	No. 23	No. 21	STATIONS	No. 22	No. 24	No. 26
Leave	Leave	Leave		Arrive	Arrive	Arrive
P. M.	P. M.	A. M.		A. M.	A. M.	P. M.
5.30	12.25	6.20	COROZAL.......	6.20	11.35	5.30
5.40	12.35	6.30	PANAMA...	6.10	11.25	5.20
Arrive	Arrive	Arrive		Leave	Leave	Leave

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Mr. H. H. Rousseau, U. S. N., Culebra.
Mr. J. C. S. Blackburn, Ancon
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop,
Secretary, Ancon

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A. Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. K. DePutron, chief clerk.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
C. A. McIlvaine, chief clerk

D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, chief clerk.

Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. McPherson, chief clerk.

W. G. Comber, Division Engineer, La Boca
David V. Stratton, chief clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
E. P. Thompson, chief clerk.

Wm. Gerig, Division Engineer, Cristobal
Mrs. C. L. McPherson, chief clerk.

Sydney B. Williamson, Division Engineer, La Boca.
E. A. LeMay, chief clerk.

W. G. Comber, Division Engineer, La Boca
David V. Stratton, chief clerk.

Edward Schildhauer, Electrical and Mechanical Engineer, Lock Construction.

R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, chief clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: H. H. Rousseau, U. S. N. Culebra.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, chief clerk.

George D. Brooke, Superintendent Motive Power and Machinery, Culebra.
F. W. Doty, chief clerk.

W. M. Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, jr., Architect.
J. H. Barbour, chief clerk.

Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, chief clerk Cristobal
W. C. Haskins, chief clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.

Division of Map Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon
J. K. Baxter, chief clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, chief clerk.
C. E. Weidman, Chief, Fire Department, Ancon.
E. H. Hale, chief clerk.
Geo. L. Campen, Water Commissioner, Ancon.
Inocencio Galindo, legal adviser, Ancon.

Canal Zone Judiciary.

Canal Zone Judiciary: Supreme Court, Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, clerk of court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire.
Elbert M. Goolsby, Circuit Court clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court clerk, Cristobal.
Prosecuting Attorney: George M. Shontz, Ancon.
Acting Prosecuting Attorney: Thomas E. Brown, Jr., Ancon.
Translators: F. H. Sheibley and Charles M. Brown.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Major C. C. McCullough, U. S. A., Executive Officer, Ancon.
Harry C. Bovay, chief clerk.

H. R. Carter, Director of Hospitals, Ancon.
J. C. Perry, Chief Quarantine Officer, Ancon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.
Maj. John. L. Phillips, U. S. A., Superintendent, Arcon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
Lieut. R. E. Wood, U. S. A., Assistant Manager, Culebra.
S. C. Klauber, chief clerk.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
W. M. Wood, chief clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, chief clerk.

Panama Railroad Company.

W. G. Bierd, assistant to the President, and General Manager, Colon.
W. G. Tucker, secretary, Colon

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Advance	*P.RR.*	*Thursday*	*Sept.*	*12*
Venetia	*H.-A.*	*Saturday*	*Sept.*	*14*
Panama	*P.RR.*	*Wednesday*	*Sept.*	*18*
Prinz Sigismund	*H.-A.*	*Saturday*	*Sept.*	*21*
Atrato	*R.M.*	*Saturday*	*Sept.*	*21*
Dunottar Castle	*P.RR.*	*Tuesday*	*Sept.*	*24*
Altai	*H.-A.*	*Saturday*	*Sept.*	*28*
Finance	*P.RR.*	*Monday*	*Sept.*	*30*
Colon	*P.RR.*	*Friday*	*Oct.*	*4*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Oct.*	*5*
Trent	*R.M.*	*Saturday*	*Oct.*	*5*
Advance	*P.RR.*	*Wednesday*	*Oct.*	*9*
Venetia	*H.-A.*	*Saturday*	*Oct.*	*12*
Panama	*P.RR.*	*Tuesday*	*Oct.*	*15*
Prinz Sigismund	*H.-A.*	*Saturday*	*Oct.*	*19*
La Plata	*R.M.*	*Saturday*	*Oct.*	*19*
Dunottar Castle	*P.RR.*	*Monday*	*Oct.*	*21*
Finance	*P.RR.*	*Friday*	*Oct.*	*25*
Altai	*H.-A.*	*Saturday*	*Oct.*	*26*
Colon	*P.RR.*	*Thursday*	*Oct.*	*31*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*2*
Tagus	*R.M.*	*Saturday*	*Nov.*	*2*
Advance	*P.RR.*	*Wednesday*	*Nov.*	*6*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*9*
Panama	*P.RR.*	*Monday*	*Nov.*	*11*
Prinz Sigismund	*H.-A.*	*Saturday*	*Nov.*	*16*
Orinoco	*R.M.*	*Saturday*	*Nov.*	*16*
Dunottar Castle	*P.RR.*	*Monday*	*Nov.*	*18*
Finance	*P.RR.*	*Friday*	*Nov.*	*22*
Altai	*H.-A.*	*Saturday*	*Nov.*	*23*
Colon	*P.RR.*	*Wednesday*	*Nov.*	*27*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*30*
Atrato	*R.M.*	*Saturday*	*Nov.*	*30*
Advance	*P.RR.*	*Monday*	*Dec.*	*2*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*7*
Panama	*P.RR.*	*Monday*	*Dec*	*9*
Dunottar Castle	*P.RR.*	*Saturday*	*Dec.*	*14*
Prinz Sigismund	*H.-A.*	*Saturday*	*Dec.*	*14*
Trent	*R.M.*	*Saturday*	*Dec.*	*14*
Finance	*P.RR.*	*Thursday*	*Dec.*	*19*
Altai	*H.-A.*	*Saturday*	*Dec.*	*21*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*24*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec.*	*28*
La Plata	*R.M.*	*Saturday*	*Dec.*	*28*
Advance	*P.RR.*	*Monday*	*Dec.*	*30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Finance	*P.RR.*	*Saturday*	*Sept.*	*14*
Altai	*H.-A.*	*Saturday*	*Sept.*	*14*
Colon	*P.RR.*	*Friday*	*Sept.*	*20*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Sept.*	*24*
Advance	*P.RR.*	*Wednesday*	*Sept.*	*25*
Trent	*R.M.*	*Wednesday*	*Sept.*	*25*
Venetia	*H.-A.*	*Saturday*	*Sept.*	*28*
Panama	*P.RR.*	*Tuesday*	*Oct.*	*1*
Dunottar Castle	*P.RR.*	*Sunday*	*Oct.*	*6*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Oct.*	*8*
La Plata	*R.M.*	*Wednesday*	*Oct.*	*9*
Finance	*P.RR.*	*Friday*	*Oct.*	*11*
Altai	*H.-A.*	*Saturday*	*Oct.*	*12*
Colon	*P.RR.*	*Thursday*	*Oct*	*17*
Advance	*P.RR.*	*Tuesday*	*Oct.*	*22*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Oct.*	*22*
Tagus	*R.M.*	*Wednesday*	*Oct.*	*23*
Venetia	*H.-A.*	*Saturday*	*Oct.*	*26*
Panama	*P.RR.*	*Monday*	*Oct.*	*28*
Dunottar Castle	*P.RR.*	*Saturday*	*Nov.*	*2*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Nov.*	*5*
Orinoco	*R.M.*	*Wednesday*	*Nov.*	*6*
Finance	*P.RR.*	*Thursday*	*Nov.*	*7*
Altai	*H.-A.*	*Saturday*	*Nov.*	*9*
Colon	*P.RR.*	*Wednesday*	*Nov.*	*13*
Advance	*P.RR.*	*Monday*	*Nov.*	*18*
Prinz Eitel Freidrich	*H.-A.*	*Tuesday*	*Nov.*	*19*
Atrato	*R.M.*	*Wednesday*	*Nov.*	*20*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*23*
Panama	*P.RR.*	*Sunday*	*Nov.*	*24*
Dunottar Castle	*P.RR.*	*Friday*	*Nov.*	*29*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*3*
Finance	*P.RR.*	*Wednesday*	*Dec*	*4*
Trent	*R.M.*	*Wednesday*	*Dec.*	*4*
Altai	*H.-A.*	*Saturday*	*Dec.*	*7*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*10*
Advance	*P.RR.*	*Sunday*	*Dec.*	*15*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Dec.*	*17*
La Plata	*R.M.*	*Wednesday*	*Dec.*	*18*
Panama	*P.RR.*	*Saturday*	*Dec.*	*21*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*21*
Dunottar Castle	*P.RR.*	*Thursday*	*Dec.*	*26*
Finance	*PRR.*	*Tuesday*	*Dec.*	*31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*31*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Atrato	*R.M.*	*Tuesday*	*Oct.*	*1*
Trent	*R.M.*	*Tuesday*	*Oct.*	*15*
La Plata	*R.M.*	*Tuesday*	*Oct.*	*29*
Tagus	*R.M.*	*Tuesday*	*Nov.*	*12*
Orinoco	*R.M.*	*Tuesday*	*Nov.*	*26*
Atrato	*R.M.*	*Tuesday*	*Dec.*	*10*
Trent	*R.M.*	*Tuesday*	*Dec.*	*24*

All Royal Mail steamers mentioned above and the *Prinz Eitel Friedrich* and *Prinz Sigismund* call at Kingston enroute to New York.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 23d of each month.

There were 9.28 miles of new railroad track laid in the Culebra Division during the month of July.

The Canal Record

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The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

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Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

Additional Cold Storage Supplies.

Through the courtesy of the Navy Department, the use of the transport *Culgoa*, recently equipped with large refrigerating space, has been accorded to the Commission for a shipment of fresh meats and vegetables to supply current needs. This ship is loaned to the Commission without other expense than coal and provisions while employed on this service. She sailed on the 21st instant and is due to arrive at Colon on the 28th.

In view of the limited cold storage space on the steamers of the Panama Railroad Steamship Company, it has been a difficult task to supply the demand for fresh meats and vegetables. It has been determined to enlarge the cold storage facilities on the *Allianca*, *Colon* and *Panama*, and a contract has also been entered into with the Royal Mail Steam Packet Company for cold storage space on steamers of that line up to 200 tons per fortnightly sailing, and the use of space on other sailings which can not be taken care of by Panama railroad steamships. With this contract with the Royal Mail, and enlarged cold storage facilities on the ships of the Panama Railroad Steamship Company, it is believed there will be sufficient cold storage space to meet all requirements. It will then be possible to furnish additional kinds of refrigerated goods for which there have been requests, but which the Commissary has not been able to furnish on account of the lack of cold storage space. In the meantime, the Navy Department by the loan of the *Culgoa*, has helped to relieve the situation here, and its action is greatly appreciated.

Report on Distilling Plants.

A committee composed of Mr. George D. Brooke, Superintendent of Motive Power and Machinery; Mr. J. H. Holcombe, Division Engineer, Division of Municipal Engineering; and Dr. T. S. Darling, Chief, Board of Health Laboratory, Department of Health, was recently appointed to report on all matters in connection with the furnishing of distilled water for drinking and other purposes, to the employees of the Commission.

The report of the committee was exhaustive and covered the operation of the distilling plants at Ancon hospital, Tivoli hotel, Culebra, Empire, Las Cascadas, Bas Obispo, Gorgona, Gorgona shops and Gatun. The distilling plants consist of old French condensers, boilers, and tanks. Distilled water in sufficient quantity is furnished and delivered free of cost to all employees at the above named points, at an average cost to the Commission of one cent per gallon. An additional distilling plant is being erected at Tabernilla. All water supplied Colon, Cristobal and Panama passes through mechanical filters. The committee recommended that additional plants be erected as circumstances dictated at Pedro Miguel, Paraiso, Rio Grande, Bridge No. 53 (Panama railroad), Gamboa dumps, and Mindi.

The committee recommended the use of an approved type of water cooler in lieu of those now in use and also that the regular inspection of distilling plants should be made by the boiler inspector; and that the operations of the plants should be under the Division of Municipal Engineering; and that all analyses of water should be made by the Sanitary Department. Distribution of water is made by the Department of Labor, Quarters and Subsistence.

The recommendations of the Committee have been approved.

Culebra's Highest Shovel Average.

The total output of the 39 steam shovels in the Culebra Division on Tuesday, September 17th, was 34,116 cubic yards, or an average of 875 cubic yards per shovel. Six of these shovels (in the Pedro Miguel district), excavated 6,000 cubic yards, an average of about 1,000 cubic yards per shovel. While the total excavation in the division has been exceeded when a greater number of shovels were in operation, the average per shovel is the highest thus far attained.

Phases of Work in Culebra Division.

The total amount of coal used in the Culebra Division during the fiscal year ending June 30, 1907, was 79,500 tons, costing $515,453.82.

On July 1, 1906, there were 65.8 miles of track in operation in the Culebra Division, of which 28.1 miles were laid with old Panama railroad and Belgian rails. On July 1, 1907, there were 106.78 miles of track, practically all of which was laid with 70-ton American steel rails.

In the progress of the blasting operations during the fiscal year ending June 30, 1907, there were drilled the following number of lineal feet of holes in the Culebra Division:

Steam and air drills	442,839 lin. ft.	83 9 miles.
Well or churn drills	167,052 lin. ft.	31.6 miles.
Hand drills	100,101 lin. ft.	19.0 miles.
Total	709,992 lin. ft.	134.5 miles.

On June 30, 1907, there were in operation in the Transportation Department of the Culebra Division, the following equipment:

Locomotives	132
Plows	28
Lidgerwood unloaders	18
Spreaders	12
Lidgerwood flat cars	1,245
Twelve-yard Western dump cars	267
Twenty-yard Western dump cars	86
Old French dump cars	198
Ballast cars	24
Track throwing machines	5

Very Heavy Timbers.

The anchor timber or spuds that have arrived at La Boca for use on the new dipper dredge will be the largest timbers that have ever reached the Isthmus. They come from Portland, Oreg., and are of the finest Oregon fir. One of them is 8 by 9 inches by 62 feet, another is 24 by 36 inches by 60 feet and the third 36 by 36 inches by 60 feet. These spuds will be used to keep the dredges in their proper position while at work, and will be raised and lowered by steam. There is no timber of these dimensions to be obtained on the eastern coast of the United States. The spuds which were brought here from the States on the dredge which arrived recently at Colon, instead of being single timbers, were each composed of four timbers bolted together.

Rehabilitated French Dredge.

By the expenditure of $20,000 for labor and material an old French ladder or elevator dredge, which had been lying in the Rio Grande river above La Boca for more than twenty years, has been restored in every part so that it is now capable of excavating 120,000 cubic yards of material per month, an amount equivalent to that removed by four 95-ton five yard steam shovels. This dredge when in service at the La Boca entrance of the Canal, will do more work than a modern dipper dredge costing $102,500.

In reconstructing the dredge all the essential parts used were French. These were found in the jungle or among other old French plants scattered along the line of the Canal. The three boilers, which have been installed in place of the two original ones, were found in the jungle near San Pablo, where they had been lying for more than twenty years. They were in excellent condition, free from corrosion, and all bearings and fittings were in good working order. The two cylinders also came from the jungle, and were in like excellent conditions. Their valves had to be reset and new rings fitted, otherwise they were in as good condition as when new. The engine which had remained in the hull was in excellent condition and could not be surpassed by modern machinery, both as to adjustment and economy of operation. The copper piping on all the machinery is of very heavy design and shows much more careful workmanship than is found in modern machinery. The remarkable preservation of this machinery was due in the first place to the high quality of material used in construction, and in the second place to the

NOTES OF PROGRESS.

(*Continued.*)

use of white lead and grease which covered the parts and excluded the air.

The hull was towed down to the shipways and placed on the gridiron about four months ago. Certain alterations have been made in it from the original design, and three boilers have been installed instead of the two formerly used, permitting the use of two while one is being repaired. Electric lights have been installed, and the quarters have been fitted with all conveniences of modern plumbing, baths, etc. They are of sufficient capacity to furnish accommodations for a double crew who can live on board, thus permitting a change of watch without stopping work. The dredge is of the ladder or elevator type, similar to the old Scotch dredge A-2, which was reconstructed by the Panama Railroad Company five years ago, and which since then has been at work in the channel from La Boca to Naos island, with a record of less than 40 days out of commission for repairs during that time. It is anticipated that the performance of these two dredges will be about equal, and that with both of them in active operation a considerable increase will be made in the total yardage removed from the Canal prism. The material removed by these two dredges is taken to sea and dumped in deep water by a fleet of eight self-propelling old French hopper barges, of a capacity of about 225 cubic yards of material each.

Another old French dredge of similar type is now being repaired in the Cristobal dry dock, and will probably go into commission about the last of October.

New Panama Railroad Line.

Work on the Panama railroad as it will be when the Canal is completed, was begun in June and on the first of September over two and a half miles of permanent new track and over 25,000 feet of temporary track had been laid. The work during June and July has been carried on simultaneously from seven different points. Tracks were laid from the present main line of the railroad to points opposite Pedro Miguel, Gatun,- Lion Hill, Gamboa, Miraflores, San Pablo and La Boca Junction. Reports now available show that after a thousand feet of track had been laid from Pedro Miguel to the site of the new location, a high trestle was completed between Pedro Miguel and Miraflores and a steam shovel was put in position to make a necessary cut opposite the Pedro Miguel yard. At Gatun, 2,700 feet of track was laid from the main line to the points where the new line will pass Gatun. This track makes it possible to reach the site of the new line known as the Gatuncillo fill between Gatun and Lion Hill. As this fill will require about 3,000,000 cubic yards, it is desirable to begin the work at once. During July a steam shovel on the new line at Gatun completed a cut that had to be made opposite the big dam. By laying 3,000 feet of track from Lion Hill, dirt trains now have access to another big fill that had to be made on the new line between Lion and Tiger hills. At Gamboa, during the last three months, a steam shovel was moved 800 feet from the main line and operated so as to aid the first work on the piers for the 1,320-foot bridge that must be built at this point.

In the vicinity of San Pablo, 8,000 feet of track was laid to prepare the way for the work of two steam shovels and a grading plant which during July completed the preparation of the new line at that place. Before the entire new line is finished about 10,000,000 cubic yards of fill must be made. During June, July and August, while the details of the construction plan of this new line were being prepared about 500,000 cubic yards of fill were actually put in place.

Improved Water Supplies.

Mr. J. O. Meadows, special agent Bureau Plant Industry, Department of Agriculture, has arrived on the Isthmus to make a study of the different water supplies and methods of treating them, having at the request of the Commission been detailed for this duty for a period of one year in the Division of Municipal Engineering.

New Progress Map.

The Resident Engineer at Culebra has his office at work on a new contour map and profile of the Culebra Division which will show the progress that has been made down to October 1st, when it is desired to have the map finished and dated. The existing map shows the original line of the earth surface and the changes in profile that had been made down to the 1st of March. This map of March 1st shows the changes that have been made since 1905, when a similar map was prepared for the benefit of the Board of Consulting Engineers, and the map now in preparation will not only show the new profile of the Canal as it will be on the 1st of October, but it will show in a graphic way the changes that have been made in the dimensions of the Canal all through the Culebra Division. For example, at the point opposite Lirio, known to the engineers as Station 1717, the French left a channel about 70 feet wide and 40 feet deep. Down to the 1st of August last, the Americans had not lowered the bottom of the Canal at this point, but as cross section notes of that date show, the width of the Canal there was then 320 feet. At the present time, the Canal is about completed out to the final width of 420 feet. In depth the Canal at this point has to be lowered 110 feet, but at that depth it will be only 200 feet wide. This is a fair example of the progress that has been made at every cross section of the Canal between Culebra and Las Cascadas and at Bas Obispo.

Zone Fire Department Extension.

Approved plans for the immediate extension of the Zone Fire Department include the organization of paid departments at Gorgona, Empire and Culebra, to supplement the volunteer companies already established at those points, and of a second paid company at Ancon, near the Tivoli Hotel, which will cover the valuable buildings on Tivoli hill and on Ancon hill outside of the hospital reservation, while the company at the crest of the hill, near the nurses' quarters, will protect, primarily, the hospital buildings and East La Boca. Electric fire alarm systems will be installed in connection with each of the new paid departments. Station houses for the new departments were authorized in July, and are now under construction. Requisition for the proposed fire alarm systems was approved under date of August 10th, and a requisition for the additional equipment that will be needed to establish the new departments was approved under date of August 15th. This requisition includes 13 additional horses, five hose wagons, each equipped to carry a 20-foot extension ladder, and a 12-foot roof ladder, and the necessary harness, fire helmets, and other minor equipments. Steps have also been taken to secure a sufficient number of experienced firemen from the United States to man the new apparatus.

It is hoped that the new fire alarm system will be installed and that the new departments will be in operation before the end of the year.

According to figures furnished by the Division of Building Construction, the cost of the new buildings erected by the Isthmian Canal Commission to date is $8,255,837. The estimated cost of the Fire Department for the current fiscal year, including the cost of new buildings and apparatus, is $114,958.32 or about 1.39 per cent of the value of the new buildings protected. If the old buildings transferred to the Commission by the French Canal Company and the value of the property stored in all buildings were reckoned in, the annual cost of the Fire Department would probably be found to be less than one per cent of the property protected.

Another "Slump" in Black Swamp.

Sixty feet of track on the main line of the Panama railroad between Lion Hill and Ahorca Lagarto, sank in the mud of what is known as the "black swamp," on Friday morning, soon after passenger train No. 3 had passed. During the afternoon an additional sixty feet sank.

The Panama railroad has always had trouble at this place, which in the United States would be known as a "sink hole." The former management of the road made the place strong enough to support the rolling stock then in use by putting as filling under the main line track old French dump cars and rock. Some months ago, when a similar settling of the track occurred, the engineer in charge of the maintenance of way of the road drove piling as a support for the main track. This has proved all that was necessary to support the heavy equipment now in service. The ground that settled on Friday morning was the 120 feet immediately south of the southern end of the piles, which remained immovable. Pile drivers were taken to the spot from Colon and other points, and the work of driving a line of piles was begun immediately which will extend the trestle already in place about 300 feet south, or over the length of the sink hole. The main line was opened for traffic on Sunday morning. By driving this second lot of piles it is believed that the weight has been taken from the swamp and that there will be no more trouble.

Water Consumption in Panama and Colon.

The water used in the city of Panama during the month of August from the Commission reservoir at Rio Grande, amounted to 52,353,000 gallons. This was a daily average of 721,064 gallons. In the city of Colon the average daily consumption from Mount Hope reservoir was 607,298 gallons, or a total for the month of 18,826,223 gallons,

The Departure of Mr. Bierd.

Mr. and Mrs. W. G. Bierd sailed for the United States on the *Colon* Friday afternoon, September 20th. On Thursday afternoon Mr. Bierd was the guest of all the staff of the Panama railroad at dinner, and on Friday Mr. and Mrs. Bierd entertained the members of the Commission at breakfast.

Mr. Bierd entered the service of the Panama railroad as acting superintendent on September 2, 1905, and became superintendent under John F. Stevens, who was then Chief Engineer of the Isthmian Canal Commission and vice president and general manager of the road, on December 1, 1905. He was made general manager on April 23, 1906. When the present Commission took charge in April, 1907, he was made assistant to the president. Mr. Bierd has invented a machine for throwing tracks, the first one of which was put in service here in January last. This machine, when handled by nine men, does within eight hours the work which had required 500 or 600 men.

Secretary Taft's Itinerary.

Secretary Taft sailed from Seattle on the steamer *Minnesota* on September 12th. He is due to arrive at Yokohoma, Japan, September 25th; Kobe, September 29th; Nagasaki, October 4th; Shanghai, China, October 6th; Hong Kong, October 11th; where he will board the United States transport *McClellan* which will take him to Manila, being due there October 14th. He will remain in the Philippines about three weeks during which period he will attend the opening of the first Philippine Assembly and make several inter-island visits. He will leave Manila on November 4th, a United States cruiser taking him to Vladivostock, Siberia, where he is due November 11th. He will leave Vladivostock November 12th, due Irkutsk, November 16th; Moscow, Russia, November 23rd, where he will stop two days; due St. Petersburg, November 26th, stopping there two days; due Berlin, November 29th, where he will spend two days. He expects to sail from Europe about December 4th, and is due at New York about December 10th.

Church Work in the Zone.

GARDEN CITY, L. I.—Canon Henry B. Bryan, archdeacon of Queens and Nassau counties, who spent his vacation at Panama investigating church conditions there, expects to accept a call to establish a church there as soon as its control under American supervision is formally assured.

For twenty-five years the Church of England has been established at Panama, with Bishop Ormsby of British Honduras in charge of two parishes—St. Paul's Church in Colon and Christ Church of Panama. While in Panama Canon Bryan preached in the latter place. Of the 33,000 people working on the Canal, according to Canon Bryan, 5,000 are Americans. He found that the need of an American Protestant Episcopal Church has been strongly felt on the Isthmus since the influx of Americans, and the unusual success in the missionary field which Canon Bryan has met with in the East has led to his being called to undertake the greater responsibility. Canon Bryan was one of those whose name was urged as a candidate for Bishop of Long Island on the death of Bishop Littlejohn.—*New York Newspapers, Sept. 10.*

The Free Public Schools of the Canal Zone will reopen October 1.

HEALTH REPORT FOR AUGUST.

Marked Improvement Shown.

ANCON, Sept. 13, 1907.

To the Chairman, Isthmian
Canal Commission,
Culebra, Canal Zone.

Sir: I herewith forward you report for Sanitary Department for the month of August. As compared with July, there is a considerable improvement in most of the rates. In July, among our negro employees, we had 98 deaths, giving us an annual rate for the month of 42.58 per thousand. In August, in the same class we had 76 deaths, giving us an annual rate for the month of 31.25, quite a marked improvement.

The annual rate for the month of July for all employees, was 35.43, the same rate for August was 27.50. For our total population the annual rate of July was 41.45, the same rate for August, 33.75.

There has been a gratifying decrease in pneumonia for the month. In July we had 30 deaths from this disease, in August 20. All the deaths from pneumonia occurred among our negro employees. For August of 1906, we had 69 deaths among the employees from this disease, quite a marked decrease.

Among our 4,200 American whites we had only 3 deaths, which would give us a yearly rate for the month of 8.57. The constantly sick rate for the month was gratifyingly small, being 28 per thousand.

Very respectfully yours,
(Sgd.) W. C. GORGAS,
Chief Sanitary Officer.

MOSQUITO WORK AND MALARIA.

It is very pleasing to note the continuous low sick rate among the American employees, and also that our average malarial sick rate (*i. e.*, of hospital cases), among all employees was lower than during August of 1906.

The rainfall has been plentiful through the month, and natural conditions have been favorable to the development of malarial fevers. It should be remembered that new camps are being opened up and that it is not always possible to have the vicinity of such camps in proper shape before the laborers are installed therein.

The rapid progress of the Canal causes us to have a constantly changing surface topography, and anopheles breeding places are often thus made to exist near the camps and settlements. By this means the malarial status of any settlement may be changed very rapidly for the worse, and it is necessary to be constantly on the alert.

In considering the malarial sick rate these causes should be considered. In the Zone, at the present time, there are some settlements containing 1,000 or more employees where the weekly hospital malarial sick rate is at present below two per thousand, and from this varies to a maximum of 50 per thousand employees.

Also, at other times the malaria at a settlement may come from a particular group of buildings. Special attention is paid as far as possible to investigate the source of such localities having malarial sick rates that are above normal. In some cases it is found that malarial fever in a district is largely confined to laborers of a certain class or nationality, and also to other employees in groups who have about the same mode of living and other similar habits.

For instance, here and there there are groups of European laborers who keep late hours and take no care of their health whatsoever. At some camps such a group of men will occupy buildings next to those of another nationality, and there is a very high malarial sick rate from one building and a low sick rate from the other. The loss of sleep and decreased resistance is sufficient to account for the cases of recurrence that follow. In other words the recurrence is very often due to the habits and carelessness of the patient himself.

There has not been any epidemic diseases in the Zone for the past four months, although this is considered as the season of highest sick rates. Attached is given a comparison of the total weekly hospital sick rate for the Zone from Gatun to La Boca for July and August of the years 1906 and 1907.

During the month of July and August there has been about the same sick rate from La Boca to Corozal, inclusive, as in the corresponding season of last year, although the settlements now extend over a large swamp area, which cannot be drained at the present time.

Compared with July and August for last year, the following is the status of the total hospital sick rate of the two months just past:

There has been a reduction at Paraiso, Empire, Las Cascadas, and a more marked reduction at Bas Obispo and Pedro Miguel. At Culebra the reduction is more than 50 per cent.

It is interesting to note the changes that have taken place at Tabernilla and Gorgona. At Gorgona during the past nine weeks 1.8 per cent weekly hospital sick rate is the highest that occurred. The average has been below 1.5 per cent.

During 1906 for the same season, the lowest weekly record was 3.5 per cent, and for six of the nine weeks, the average was over 9 per cent per week, and on one week reached 11.5 at Gorgona.

At Tabernilla our average weekly sick rate of the past nine weeks is less than the lowest weekly record that occurred in July and August of 1906. The highest weekly record (*i. e.* percentage) of 1906, is about four times the maximum of 1907. The present population is four times that of 1906

At Gatun there was a larger percentage of malarial fever than at any other large settlement in the Zone. The settlement is scattered, covers a large territory, and is surrounded by anopheles breeding places. There is a large brigade at this point, and expect to have the situation under full control long before the rainy season arrives. The average weekly hospital rate is about 3.5 per cent at the present time.

Although it is nearly two years since there was a case of yellow fever in the Canal Zone, yet this division gives constant attention to the lookout for possible breeding places of stegomyia and expect to reduce the number of stegomyia as much as possible.

At the present time the interior of many buildings at some of the camps are carefully examined without finding any sign of mosquito life. At one place where no mosquito work had been done an approximate estimate of the number of anopheles in one large building was made, and about 500 anopheles were present. This count was made, by obtaining the average number of anopheles resting in a dozen panels and counting the number of panels on the four walls. The walls of the building are twelve feet high, but no count was made of the anopheles above eight feet high nor as to anopheles clinging to the peaked roof. The estimate was conservative. Conditions of a similar nature existed near La Boca, and in a house on the west flank of Ancon Hill two years ago.

The present average weekly malarial hospital sick rate at La Boca is .53 per cent and at Ancon is .19 per cent, and this rate would be increased from fifty to a hundred fold if the conditions that existed formerly were permitted to occur again

During August the swamp below the baseball ground at Ancon has been oiled, is being gradually filled in, and before the end of the present wet season most of the present mosquito breeding places at Ancon will cease to exist.

At La Boca we shall be able to complete the drainage of the large swamp between Sosa Hill and Ancon Hill as soon as the new drainage canal is completed.

From Pedro Miguel to Bas Obispo the bottom of the Canal changes shape continuously, affording splendid opportunity for anopheles production, and has to be attended to constantly.

The tile drainage and clearing to the north of Cartegenita at Paraiso has largely reduced the malaria in that camp, which was formerly a constant source of malaria.

At Culebra the sick rate is much lower than was expected for this season of the year, and the results of the work of our brigade at that station is most satisfactory.

In the Gorgona district the drainage work and clearing near the camps at Caballo Viejo, Mamei and Gorgona Encampment have given the desired results and a comparatively small number of patients now come from these camps as compared with past rainy seasons.

The 6-inch tile drains at Tabernilla keep the vicinity well drained in spite of the constant rains. A new drain is being made to drain the large swamp between the American settlement and the Tabernilla river. When the latter is completed Tabernilla will probably remain one of the most healthy settlements in the Zone.

At Gatun a large amount of tile drainage is being laid which will reduce the malarial sick rate at the Grecian and West Indian camps within the next two months.

ZONE FIRE REGULATIONS.

Paragraphs of General Interest from the New Book of Rules.

FIREMEN IN CHARGE OF VOLUNTEERS.

73. He shall inspect the kitchens of all dwellings, hotels, mess halls and hospitals to see that the provisions of these regulations with respect to the erection of stoves are complied with.

74. He shall instruct the occupants of dwellings in the use of chemical extinguishers.

FIREMEN ON DUTY AT SHOPS.

85. He shall see that the mechanics do not leave the shops or premises, or any portion of them, littered with inflammable material, reporting any infringement of this regulation to the master mechanic. If the practice is not immediately stopped, he shall make a written report to the Chief of the Fire Department.

87. One continuous blast of the shop steam whistle will be blown as a signal of fire, and the members of the shop company must promptly respond and perform their fire duty under the command of the regular firemen.

138. It shall be the duty of all officers and members of the department to attend all alarms and fires at stations to which they are assigned or detailed, unless excused by a superior officer; but in no case shall fatigue from duty at a previous fire be accepted as an excuse for failure to answer an alarm.

VOLUNTEERS.

170. At each shop a company of at least twenty members shall be formed from shop employes. No employe who is a member of a regular volunteer company will be required to serve in such shop company.

176. If the foreman of the first volunteer company arriving at the fire is not present, the assistant foreman shall assume command and remain in charge until the fire is extinguished, or until the arrival of the regular fireman or the foreman of either company if there be more than one volunteer company at the station.

179. When a volunteer fire company is summoned for actual fire duty, each officer and member responding to the alarm shall be entitled to pay for such fire service at the rate of one dollar ($1), United States currency, per hour, or fraction thereof.

HOSE, PIPES, ETC.

191. Too much care can not be taken of the nozzles, as a slight dent or rough surface in them at the discharge opening will prevent the discharge of a solid stream of water.

192. Great care must also be taken in handling the pipes and hose coupling, as a slight dent in either destroys their efficiency.

CRISTOBAL ICE-PLANT WHISTLE.

193. The fire-alarm telegraph system is connected with a bell in the engine room of the Cristobal ice plant.

194. When an alarm is received on the bell at the ice plant, the engineer in charge at the time will sound the following signal, indicating that a fire is in progress:

> One short, one long, and one short blast, repeating same after an interval of fifteen seconds.

STEAM TUGS "CRISTOBAL" AND "GATUN."

195. The steam tugs *Cristobal* and *Gatun* are equipped with turret nozzles, and, on hearing an alarm of fire at a dock in Colon or Cristobal, sounded on the whistle of the Cristobal ice plant, they will proceed to the fire with all practicable dispatch and promptly go into action.

196. When an alarm of fire is received at the ice plant from any of the following boxes:

223—Docks in Colon,
132—Dock 11,
332—Dry Dock (Dock 14),

the engineer on duty will sound the general alarm of fire (one short, one long and one short blast), but will not notify the steam tugs until advised to do so by the fire department after its arrival at the fire. If the presence of the tugs is required, the following signal will be sent in once from the box from which it was originally sounded: 1–3–1. On receipt of this notice the engineer on duty at the Cristobal ice plant will at once call the assistance of the steam tugs *Cristobal* and *Gatun* by sounding the following signals on the ice plant whistle:

One long and one short blast—Colon docks.
Four short blasts—Dock 11.
Five long blasts—Dock 14 (Dry Dock).

to be repeated once after an interval of fifteen seconds.

211. None but metal lamps shall be used in buildings, and no kerosene of less than 150 degrees proof shall be burned in them or in kerosene stoves.

212. In setting up stove pipes in kitchens of dwellings, or in any other Commission building, a distance of two inches must be left between the stovepipe and the wood through which it passes, the entire distance around the stovepipe. If the stove is nearer than two feet to a wooden wall or partition, it shall be protected by a piece of zinc or sheet iron.

New Zone Building Laws.

The following building regulations of the Canal Zone have been adopted by the Canal Commission, effective Sept. 1, 1907:

1. Persons intending to erect buildings in the Canal Zone shall submit architect's plans and specifications, or in the absence thereof, a builder's drawing, to the Head of the Division of Municipal Engineering for his approval. Such plans or drawings shall show clearly the area of the lot upon which the building is to be located, the location of the building with reference to the lot lines, the ground plan, the elevation, and all doors, windows and other openings for purposes of light and ventilation. There shall also be submitted to the Head of Municipal Engineering, for approval, specifications showing clearly the material to be used in constructing the building.

2. If the plans and specifications submitted conform to the building regulations herein prescribed, the Head of the Division of Municipal Engineering shall approve them in writing, and this approval shall constitute the builder's full authority to construct a building under the plans and specifications submitted.

3. In the laying out of new towns and remodeling of old towns, streets shall not be less than forty (40) feet wide, constituting a roadway of thirty (30) feet wide and sidewalks of five (5) feet wide on side of said roadway. No porches or steps shall encroach on space provided for sidewalks, but balconies of the second story may overhang them six (6) feet.

4. There shall be either a free space of not less than fifteen (15) feet between buildings, or else the walls shall be joined together with no intervening space. In this free space no outhouses, annexes or verandas, steps nor staircases, shall be built, and no material of any nature shall be stored therein.

5. There shall be a clear space of not less than three (3) feet between the ground and the foundation frames of any house, except in the case of buildings located on sloping ground the floor of the building at one end may be at an elevation of not less than one foot above the ground level, providing the average elevation is three feet or more. Buildings used in whole or in part for business purposes shall conform to the above requirements, unless concrete floors are installed, which shall be raised not less than six inches above the ground level, providing the space be filled solid between the floor and the ground. Farm buildings, stables, blacksmith shops shall be exempt from the requirements of this section. When a cut has been made in a hill to obtain a site, there must be left a space between the building and the foot of the slope not less than one and a half times the height of the slope.

6. The ground beneath all buildings shall be graded and drained in a manner to prevent the accumulation of water in puddles. Concrete gutters below the eves may be required by the Head of the Division of Municipal Engineering if, without this precaution, the drippings from the roof would accumulate in puddles.

7. Gutters shall not be used on buildings except over doorways.

8. The distance between the floor and the ceiling shall in no instance be less than ten feet, and in each room there shall not be less than one window opening upon a street, yard or patio.

9. There shall be a free space of fifty feet between the back of one house and that of another when the houses face on different streets with back to back; provided, that in special cases, to be determined by the Head of the Division of Municipal Engineering, they may join. Furthermore, there shall not be built sheds, balconies, or annexes of any description in this free space, and no material of any nature shall be stored between houses.

11. Attached to each house there shall be a fly-proof privy, which shall be located at a distance of not less than twenty (20) feet from the house. This requirement shall not apply when sewer connections are made.

12. No solid fences, such as pieces of galvanized iron, shall be built around or between houses; all such fences constructed shall be either of wire, wire netting or pickets of bamboo or wood. The pickets must be no more than six inches wide nor less than three inches apart.

13. Buildings of bamboo, cane, or similar material, or buildings roofed with thatch, may be constructed if standing alone in the fields or in rural communities, but in towns and villages all buildings must be of wood, masonry, plaster or corrugated iron, and shall be roofed with tin, corrugated iron or other noninflammable material.

14. Any person who shall violate any of the provisions of this regulation, where no penalty is provided, shall be subject to a fine of not less than five ($5) dollars, nor exceeding twenty-five ($25) dollars, for each and every offense.

15. Any builder, contractor or agent who shall construct any building in violation of this ordinance, shall be liable to the penalties provided and imposed by this section.

DAILY FORCE REPORTS.

The daily force reports prepared and kept by the commissioner in charge of the Department of Labor, Quarters and Subsistence show at a glance the exact number of men working each day for every one of the departments of the Canal work and the Panama railroad; the number who are paid by the month in gold and in silver; and the number paid by the hour at each of the rates prescribed by the Commission. The workmen paid by the hour in silver are further classified in these reports so that the heads of the department may know instantly how many of the total force of common laborers are sufficiently familiar with the handling of tools to be available for assignment to the divisions and departments that may call for the cheaper grade of artisans rather than the pick and shovel man.

Examination of the figures in these reports shows how closely the Department of Labor actually meets, or in some cases exceeds or falls short of, the daily demand for each class of labor needed on the Isthmus.

The daily force report for the 11th of September, summarized below, indicates that 15,520 silver laborers of all kinds were working on all the divisions of the Department of Construction and Engineering. As this report is arranged it is easy to see this number is 316 less than the number working the same day of the month previous. It is equally easy to see that if these figures indicated a shortage, the demand was met because in ruled spaces almost immediately adjoining that showing the 318 less men, is recorded the fact that the number of men working September 11th is 165 more than the number working the week previous, and that the day before the report was made, 297 additional men were distributed over the department. The changes in every other department are tabulated in the same way, and show that all points of the work, the supply of labor is such as to keep the number of men working nearly constant. This report of September 11th, shows that the Sanitary Department with a total of 2,196 common silver paid laborers on its rolls, was short on the date the report was made only 17 men. The report shows that the Department of Law and Government employing 60 silver men had one man more on the 11th of the month than were present on the 10th. This evenness of supply from day to day has been maintained as well from month to month.

With a total of 19,658 common laborers of all classes working for the Isthmian Canal Commission at all points of the Isthmus on the 11th of September, the daily force report for that date, shows that this total is only 122 less than the whole total in service the 11th of August, and 82 more than the whole number working the 4th of September.

Department.	SILVER EMPLOYES												
		ARTISANS.		LABORERS.									
	Monthly.	32 cts. and over.	26 cts.	40 cts. (European).	32 cts. (European).	26 cts.	20 cts. and under (except AI)	13⅓ cts. (Grade AI.)	Total Silver.	Total Gold.	Total Gold and Silver.	Daily changes.
Construction and Engineering..........	1562	5265	974	4003	238	466	972	2020	15,520	3498	19,018	+97
Labor, Quarters and Subsistence	1354	17	1	151	1	....	2	340	1,866	150	2,016	-1
Law and Government......................	41	18	....	....	....	....	1	....	60	326	386	+1
Sanitation.................	803	**239	....	128	....	10	417	599	2,196	432	2,628	-17
Disbursements	15	....	....	....	....	....	....	....	15	106	121	-1
Examiner of Accounts....................	1	....	....	....	....	....	....	....	1	50	51	....
Total........	3796	5539	975	4282	239	476	1392	2959	19,658	4562	24,220	+79
Sept. 4, 1907	3763	5496	837	4198	339	655	1352	2934	19,576	4626	24,202	....
Changes..................	+33	+41	+138	+84	-100	-179	+40	+25	+82	-64	+13	....
August 11, 1907	3680	5801	837	3990	550	273	1509	3140	19,780	4590	24,370	....
Changes	-11	-262	+138	+292	-284	+203	-117	-181	-122	-28	-150	....
Panama Railroad, August 28, 1907, not included in total..........................	416	1110	....	....	....	1957	1243	....	4,726	1108	5,834	....

** Of whom 128 are non-European laborers, scythemen, scavengers, etc.

Freight Steamer Arrivals.

Mobila, with 95 tons of forage.

Atheniana, with about 1,181,000 feet of lumber.

The *Finance*, with 140 tons of miscellaneous small freight.

Steamer *Mersario* from New York arrived at Colon to-day bringing 4,000 tons of rails, etc., 250 barrels crude carbolic acid. The balance of her cargo was several thousand tons of coal.

The tug *Powerful* arrived on the morning of the 7th with three steel barges, after having been on the way from New Orleans since August 3.

The *Nanette*, which sailed from New York on the 5th, will call at Fernandina for a cargo of lumber, bringing from New York several hundreds of tons of machinery.

Steamer *Caprivi* from Brunswick, Ga., where she left on the 12th instant, arrived at Cristobal last night with 3,300 cross ties. Now unloading at dock 11.

Second Conviction for Murder.

Sanson Jachaquot, a Martiniquan laborer was tried in the circuit court at Empire on September 20, and found guilty of murder in the first degree. Jachaquot was charged with the murder of Mathew Moliac at Empire on August 11. This is the second conviction for murder in the courts of the Canal Zone.

Trial by Jury on the Zone.

(*Washington Despatch to the New York Sun, Sept. 12.*)

Whether the right of trial by jury, as guaranteed under the Constitution, extends to the Canal Zone is to be tested in the case of Adolphus Coulson, a West Indies negro laborer, who is now under sentence of death for the murder of his wife. Coulson is said to be the first man against whom capital punishment has been imposed in the Zone since the occupancy of the United States; at any rate his is the first case to be appealed to the Supreme Court of the United States for the purpose of determining the question whether the Constitution follows the flag to the Isthmus.

Coulson is under sentence to be executed to-morrow, but upon application of his counsel, Chief Justice Fuller has granted permission to sue out a writ of errors, which, if it is properly served before the execution takes place, will act as a stay of proceedings, and the man's life will at least be prolonged. There is said to be no question as to the guilt of Coulson, and he is alleged to have made a partial confession. The point involved is as to the legality of his trial for his life without a jury.

Coulson went to work on the Canal as a laborer a year ago, and lived with a woman known as Louise Mendes. Subsequently his wife appeared upon the Isthmus and started trouble. Finally Coulson abandoned the woman and lived with his wife. Shortly afterwards the wife died under peculiar circumstances, and when an autopsy was performed more than twelve grains of arsenic were found in her stomach. Coulson admitted having given his wife several powders before she died; and these, it was learned, contained a large amount of the poison.

He was tried by Judge Gudger and two associates, promptly convicted and sentenced to death.

Later the Supreme Court of the Canal Zone, following a precedent established in a case brought to the Supreme Court of the United States from the Philippines, where it was held that the Constitution did not extend the right of trial by jury to the Islands, affirmed the sentence. Just at that time there was a party of Congressmen on the Isthmus, among them Representative McCall of Massachusetts, and former Representative Brooks of Colorado, both sticklers for the rights of the Constitution.

They immediately took an interest in the matter and engaged a Boston lawyer to apply to the Supreme Court for a writ of error in order that the prisoner might obtain his rights. Recently Chief Justice Fuller granted the application, and word was cabled to the authorities on the Zone that the writ had been granted, and that accordingly the execution of the sentence should be deferred.

Marine Officers at Camp Elliott.

Major J. H. Russell, United States Marine Corps, commanding.

Second Lieut. C. B. Matthews, United States Marine Corps, adjutant.

Capt. N. G. Burton, United States Marine Corps, assistant quartermaster, and acting assistant paymaster.

P. A. Surgeon H. O. Shiffert, United States Navy, medical officer.

Capt. J. F. McGill, United States Marine Corps.

First Lieut. H. H. Kipp, United States Marine Corps.

First Lieut. G. M. Kincade, United States Marine Corps.

First Lieut. John Newton, United States Marine Corps.

BOILER INSPECTION SERVICE.

By Robert E. Lindsay.

On June 1, 1907, the first regular Boiler Inspection Service on the Isthmus of Panama was created, when an order was issued by the Chairman of the Isthmian Canal Commission that all boilers of the Isthmian Canal Commission and the Panama railroad be inspected and tested by the Boiler Inspection Department, which was put under the direction of the Superintendent of Motive Power and Machinery.

The Boiler Inspection Service consists of one United States licensed inspector with four assistant inspectors. All boilers embraced in the Inspection Service, are divided into four divisions: Locomotive, Stationary, Steam Shovel and Marine. An assistant boiler inspector is assigned to, and held responsible for each division of boilers he tests and inspects making his report to the head inspector, whose office is at Culebra. The head inspector transmits this report with his recommendation to the Mechanical Engineer, who orders the work performed. A copy of this order from the Mechanical Engineer is given to the assistant inspector in whose division the boiler is located. He inspects and retests the boiler after the repairs have been completed, and certifies to the head inspector that the repairs have been properly made, and that the boiler is in good condition.

Each boiler is visited on an average once in three months; condition of the boiler and fittings noted, and if possible, hydrostatic test is given, reports of same being made on a regular form to the head inspector. These reports embody the complete history of each boiler, and are filed for future reference.

The percentage of boilers that have been found to be properly operated has been about one in three. The main difficulty has been to make the firemen keep their boilers clean, inside and out. Many of the boilers in use at the present time are old French ones that have been repaired and put in shape for temporary service. They are, however, being steadily superceded by more modern boilers brought from the States, as it has been found that the increased cost incurred in operating the old French type is so much greater than in operating a modern boiler of equal power, that it is economical to buy and install the latter.

There are in use at the present time 764 boilers of all classes, divided as follows: 311 locomotive, 338 stationary, 63 steam shovel and 52 marine, representing approximately a total of 69,452 horsepower. New boilers are constantly being added to this number to such an extent that it keeps the Boiler Inspection Service very busy.

Official Decision.

The rule that an employee must report for duty when he has been absent on account of sickness before he can be paid on the following pay roll, does not apply in a case where the employee's services were terminated by or at the instance of the Commission before such return to duty, provided that the regulations relative to the filing of a physician's certificate and the approval of the head of his department have been complied with. This ruling is in accordance with the decision of the Comptroller of July 27, 1906, in the case of Alfred J. Ferrer. In that case the Comptroller ruled that "an employee of the Isthmian Canal Commission, whose return to duty from a leave of absence granted to him with pay was prevented by action of the Commission in ordering his discharge at the expiration of his leave, is entitled to pay for the period of his leave."

Fewer Official Letters.

In order to reduce the number of official letters to a minimum and to conduct the routine of his office in a most expeditions manner the following blank form has been adopted by the Chief Engineer, and is now attached to all papers which are sent from his office to the officials named thereon. Using this blank, only two pencil strokes are necessary to do the work of a letter or an endorsement.

OFFICE OF CHIEF ENGINEER.

The attached papers are respecfully referred—

To	Check	For	Check
Col. Goethals...	....	Attention	....
Maj. Sibert	....	Approval	....
Maj. Gaillard...	....	Signature	....
H. H. Rousseau	....	Note and return	....
Geo. D. Brooke	....	Note and file.....	....
W. M. Belding.	....	Comment	....
R. E. Wood	....		

Misdirected Letters.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, Ancon, C. Z., and may be secured on request of addressee:

Alleyne, Mrs. Roselia
Barto, Ben
Bassett, Arthur
Berkointz, Isadore
Blackburn, Clarence
Cammack, Charles
Carmichaelx, Ezekiel
Caro, Daniel de
Cella, Louis
Davidson, Jas. E.
Dexwvihn, Dizifpior
Dose, H. F.
Eckloff, Frank E.
Edeman, B. F.
Edey, Jonathan
Falkner, Miss Florence
Falkner, Mrs. Geo.
Finch, Francis Donald
Finlay, Mrs. W. H.
Gareer, Mrs. Annie
Hagany, John
Hall, Samuel
Halley, A. R.
Hanson, W. H.
Herrick, Charles S.
Herman, Irving
Irish, Edward S.
Jones, K.
Kasbitt, Borgon
Kennedy, Edward
Lisnie, Nikols
Martin, James
MacAdam, H. E.
McClellen, John D.
McLeod, Ludric
O'Connor, Thomas
Pearce, Ned
Pereira, Aldrete & Cía
Platone, William
Plivant, Henri
Plummer, Mr.
Queenly, Walter H.
Raymond, Ed. H.
Richardson, F. L.
Robb, W. S. A.
Schmelter, Marion
Sec. of Brotherhood of R.R. Trainmen
Shaw, Charlie A.
Tomlinson, John
Van Den Heurk, Chas. L.
Walden, Jas.
Welch, Mrs. Rhoda
White, Roy McCutcheon
Antioco, Mrs. Puxeddu
Booz, Thos. S.
Brown, J. F.
Buske, W.
Butler, Cap. Bar
Chrodetakon, Dimetrion
Colburn, Miss Florence
Crawford, John
Downes, John R.
Duncan, Robt. H.
Dye, Ira
Ellis, Guy T
Erickson, Erick R.
Everist, A. C.
Fisher, Allan D.
Francis (Hosp. Steward)
Grace, M. F.
Hermann, Lester
Hobbs, W. A.
Hodgeman, Frank
Hughes, C. R.
Hunter, Levi A.
Hyatt, J. F.
Jones, Kemp G.
Kimberly, T. W.
Kime, Hugh J.
McLoughlin, Patrick M.
McPrake, J. C.
McTyre, W. W.
Oliver, B. N.
Potts, Mr.
Powderly, J. L.
Prescott, Herbert
Price, Robert
Robert, R.
Rohr, Henry
Rowland, Miss L.
Shepard, S. A.
Smith, Geo. W.
Solchtig, H. F.
Stewart, David
Trembly, Henry
Vetters, Miss Sarah
Vinton, H. L.
Wells, Frank H.
Wolfberg, R.
Wright, Wallace

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

A number of letters written for this column were received too late for publication in this issue. They will appear in the next issue.

Independent Order of Foresters.

The Canal Record:

Kindly insert in the columns of your paper the enclosed inquiry:

If there are any Independent Order of Foresters members located in the Canal Zone, please communicate with

THOMAS EDWARD TRACY,
Imperial Hotel, Colon.

Colon, Sept. 20, 1907.

"Pythianism Follows the Flag."

The Canal Record:

Culebra Lodge No. 3, Knights of Pythias, was organized on Saturday night, September 14. Ranks were conferred by the officers and team from Empire Lodge No. 2. Officers were installed by D. D. S. C. Walter J. Thomas, of Cristobal. This was a record breaker, as ranks were conferred on 72 candidates. A great deal of credit for this fine showing is due to P. F. Maher, C. L., of Empire Lodge No. 2, also M. C. Nolan, newly elected C. C., of Culebra Lodge No. 3, for their untiring efforts in getting such a fine body of representative employees together.

A large delegation from Panama Lodge No 1, of Cristobal, and Knights of Pythias club, of Gorgona, came over on the evening train to see the work. A banquet was served at midnight, at which 200 Knights of Pythias fully enjoyed themselves. There are now three Knights of Pythias lodges, one Knights of Pythias club, all members of the I.C. C. or Panama railroad, about 350 in all. They meet every week fraternally and socially.

WALTER J. THOMAS,
Cristobal, C. Z.

Cristobal, Sept. 18, 1907.

Panama Lodge No. 1, K. of P.

The Canal Record:

At the first meeting of Culebra Lodge No. 3, Knights of Pythias, which was held in the new lodge room at Culebra Wednesday evening, September 15th, a resolution of thanks was tendered to Walter J. Thomas, district deputy supreme chancellor; also to officers and members of Empire Lodge No. 2 for their efficient work in institution of Culebra Lodge No. 3. This resolution and extract from letter of the supreme chancellor was ordered spread on the minutes of the first meeting of Culebra Lodge No. 3.

W. J. ADAMS,
K. of R. and S.

Cristobal, C. Z., Sept. 20.

Knights of Pythias.

The Canal Record:

The Gorgona Pythian Club enjoyed a pleasant evening and a fine repast at the home of Brother S. C. Calvit on Thursday evening, September 19th. The Pythian Club meets every Thursday night in the lodge hall at Gorgona.

H. W. GOEBAL,
President.
C. A. PALMER,
Secretary.

Gorgona, C. Z., Sept. 21, 1907.

SOCIAL AND PERSONAL.

Farewell Reception to Mrs. Bierd.

Mrs. W. G. Bierd was entertained at a farewell reception by the ladies of Colon and Cristobal at the home of Mrs. Rodman on Thursday afternoon. The ladies present were Mrs. Tubby, Mrs. Collins, Mrs. Burke, Mrs. White, Mrs. Hagemann, Mrs. Dyer, Mrs. Thomas, Mrs. McCormick, Mrs. Ellison, Mrs. Bergin, Mrs. Grace, Mrs. Wardlaw, Mrs. Parker, Mrs. Hudson, Mrs. McGill, Miss Robb, Miss Murray and Miss Rodman.

The Tivoli Club.

At the annual election of officers held the latter part of August, the following gentlemen were chosen to manage the affairs of the club for the next six months: Hon. Jos. C. S. Blackburn, president; Surgeon J. C. Perry, first vice president; D. W. MacCormack, second vice president; W. H. MacFarlane, treasurer; Malcolm Elliott, secretary. These, together with Hon. Arnold Shanklin and Mr. E. C. McFarland, compose the Board of Governors. The club has 110 members, and it has been decided to limit the active membership to 150.

The second dance of this month was held at the Hotel Tivoli Saturday, September 21, with Mrs. Theo. C. Lyster as patroness. The next dance has been set for October 5.

Banquet at Gorgona.

Mr. C. L. Vanden Heurk, manager of the Gorgona Bowling Club, entertained the Gorgona and Cristobal Bowling Teams last night after the games, at an informal dinner, as follows:

Consomme with vegetables, pickles, lobster croquettes d'uxells, fillet of beef aux champignon, roast turkey cranberry sauce, asparagus, green peas, vanilla ice cream, pound cake, cheese, crackers, claret, coffee.

Concert.

By the I. C. C. Band at Culebra, C. Z., Sunday, Sept. 29, 1907, at 2 p.m.:

PROGRAM.

1 March	*Chateau Gontier*	Fischlin
2 Overture	*Raymond*	Thomas
3 Intermezzo	*Iola*	Witmark
4 Song for cornet	*Somewhere*	Harris
CHAS. F. JENNINGS.		
5 Popular medley	*Remick's Hits*	Lampe
6 Paraphr'se on the	*Austrian Hymn*	Godfrey
7 Waltz	*Symposia*	Bendix
8 Descriptive	*Cavalry Charge*	Luders
9 Characteristic March	*Paddy Whack*	Lampe

CHAS. E. JENNINGS,
Musical Director.

Texas Club Banquet.

The Texas Club gave a banquet to Texans last night at the Gorgona hotel. The dining room was elaborately decorated with palms, bunting and the United States, Panama, and Texas flags. The tables were in the form of a "T" and decorated with rare potted plants. The cakes and ices were served in red, white and blue stars. Over the Toastmaster's head was suspended a large white star, emblematic of the Lone Star State. Seats of honor were occupied by Lieut.-Col. Geo. W. Goethals, U. S. A.; Commissioner H. H. Rousseau, and Major Edgar Jadwin, U. S. A. The toastmaster was Mr. W. F. Morrison, and the responses were many and in a vein that produced much applause.

The tables were set for 75 and but few seats remained unoccupied. At each plate was a card favor tied with blue ribbon on which was stamped in bronze

TEXAS BANQUET,
I. C. C. HOTEL,
Sept. 21, 1907, GORGONA, C. Z.

Manager C. Z. Vanden Heurk served the following menu:

Consomme aux Mozedoms, olives; croquettes of salmom, French peas; roast ham; champagne sauce, browned potatoes; Pontet Canet; roast chicken a la mazerine, asparagus tips, stewed mushrooms; shrimps en mayonnaise, Imperial cheese; peach ice cream; Lone Star cakes; coffee.

Dinner to I. C. C. Ball Team.

Sixty friends of the I. C. C. Baseball team entertained the players at a dinner at the Tivoli Hotel on Saturday, the 14th instant. Messrs. Klauber, Hudson and Bryan, as the committee in charge, made all arrangements for the evening. A portion of the I. C. C. band furnished music. Many men on the line, who had planned to attend, were unable to be present. Those present included Messrs. Hudson, Tragsdorf, Thompson, Huff, J. B.; McCarney, Riddle, Huff, M. B., Lawlor, Keeling, Shannon, O'Reilly, Stewart, Gamble, McIlvaine, McRaven, Bryan, Johnson, Chamberlain, Yingling, Sands, Donohue, Avis, Paul; Jacobson, Buchan, South, Dunning, Paulat, Flieschman, Thweat, McDavitt, Whitby, Carruthers, Maehler, Brown, Fogg, James, Dr. Purnell, Herz, Max; Bain, Hoffmark, Herz, Simon; Curran, Klauber, Rupp, Heisig, Stevens, MacCormack, Avis, Hugh; Patchell, Vince, Gibson, Ward, Sampson, Hallen, Bosse, Mullin, Sommers, Robertson, Craddock, Douglas, Gavin.

Vacation Men.

During the week ending September 18, 1907, leave of absence was granted to the following men:

Sept. 12: R. C. Deal. Sept. 14: Rene C. Castel, Arthur H. Hartwig, Nathan O. Hellings, Arthur S. Higgins, Patrick J. Joyce, James R. Keeling, Arthur T. Luther, Francis P. Maehler, Arthur B. Penn, William Ramsey, Wesley M. Sarvey, Thomas Smith, Robert Sommerville, Charles H. Thurston, Percy C. Wass. Sept. 15: Frederick Kino, Richard C. Smith. Sept. 17: Walter J. Humphrey.

Cristobal Commission Club Notes.

The outlook for basket-ball is most encouraging. A squad of about twenty men is working out twice each week. Quite a number of these men have played on college and Y. M. C. A. teams in the States, and everything points toward high-grade basket-ball on the Isthmus. An Inter-National League is to be arranged in the near future.

Mr. N. R. Johnson, clerk of the circuit court, who was formerly a professional acrobat, is training a number of men in tumbling and other mat work. A safety belt and other equipment has been provided to facilitate this feature of the club-house activities.

The Cristobal Bachelors' Club will give an invitation dance at the club house on Saturday, October 5.

Invitations are out for the woman's reception on the afternoon of Friday, September 27, in honor of Miss Helen Boswell, who is here in the interest of woman's clubs. It is proposed to organize a Cristobal Woman's Club with the purpose of affiliating with the General Federation of Women's Clubs in the States. The temporary committee on arrangements is as follows: Mrs. Lorin C. Collins, Mrs. Walter G. Tubby, Mrs. John Burke, Mrs. Charles Guckel, Mrs. Claude C. Pierce, Mrs. F. H. Powell, Miss Ida Pritchard.

Through the kindness of the Department of Labor, Quarters and Subsistence a splendid billiard table, formerly used by the Cristobal Club, has been added to the equipment of the Commission club house.

One of the recent additions to the privileges is the establishment of an up-to-date barber shop with an American barber in charge.

An indoor athletic meet is held every Friday. The events include pole vault, running broad jump, running high jump, potato relay race, high dive, fifteen-yard dash, etc. A squad of about fifteen men is working out for the proposed Thanksgiving Day meet.

Commissary Prices.

For week ending Sept. 20;

FRESH MEATS.

		Price CTS.
Mutton, entire forequarters	per lb.	10
Mutton, short-cut chops	do	19
Mutton, leg	do	17
Lamb, for stewing	do	11
Lamb, entire forequarters	do	11
Lamb, short-cut chops	do	27
Lamb, legs	do	24
Beef, sirloin, roast	do	18
Beef, rib roast, short cut	do	17
Beef, rib roast, second cut	do	15
Beef, chuck roast	do	12
Steaks, Porterhouse	do	23
Steaks, sirloin	do	21
Steaks, rump	do	23
Steaks, tenderloin	do	22
Steaks, round	do	12½
Beef, corned	do	10, 12, 14
Beef, soup	do	7
Beef, stew	do	10
Veal, cutlets	do	21
Veal, short-cut chops	do	20
Veal, loin	do	12
Veal, entire forequarters	do	9
Veal, for stewing	do	8
Pork, cuts	do	20
Livers Beef	do	9
Frankfurt sausage	do	17
Ham, Sugar Cured Sliced	do	§25
Ham, ½ (for boiling)	do	§20
Bacon, English breakfast, sliced	do	§26
Livers, Calf	each	60
Sweet breads, Veal	per lb.	1.20
Sweet breads beef	do	25

POULTRY AND GAME.

Chickens, dressed, (milk fed)	each...$	*1.30
Fowls	do	*1.00
Capons, Philadelphia	do	2.40
Ducklings	do	1-25
Turkeys	per lb.	26½
Broilers, frys (chicken)	each	†80
Squabs	do	35
Eggs, fresh	per dozen	†30
Oyster, ½ gal. kegs	each	70

DAIRY PRODUCTS.

Butter, prints, prime quality	per lb.	†35
Cheese, cream	each	22
Cheese, Neufchatel	do	6
Cheese, Camembert	do	28
Cheese, Roquefort	per lb.	45
Cheese, Young America	do	22
Milk	per quart	**15*

FRUITS AND VEGETABLES.

Lemons	per dozen	15
Oranges	per dozen	*12
Apples	per lb.	6
Limes	per hundred	30
Bananas	per dozen	5
Peaches	per lb.	*10
Tomatoes	per lb.	10
Celery	per bunch	*18
Cucumbers	per lb.	5
New potatoes	do	3
Sweet do	do	2¼
Cabbage	do	3
Lettuce	do	7
Onions	do	3
Grapes	do	*6
Watermelons	each	†30
Cantaloupes	do	*6
Pears	per lb.	10

** Indicates 5 cents allowed for return of bottle.

§ Sold only from Cold Storage and not from Commissaries.

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	*New Price.* CTS.
Cigars, Governors	each	10	8
do After Supper	do	3	2½
do Bouquets	do	7	6
do Caballeros	do	10	8
Tobacco, Drummond's Natural Leaf	plug	25	20
Ammonia, Parsons's Household	bottle	8	15
Soda, bi-carb, 2-oz	pkg	12	2
Asparagus, Jemco, 2½s	tin	34	44
Soap, castile	lb	11	11
Tanglefoot, fly-paper	sheet	2	1½

NEW ARTICLES.

		Price. CTS.
Asparagus, Republic, 2½s	tin	42
Baking Powder, Rumford's, 5s	do	$1.02
Coffee, Isthmian American, 2s	do	70
Lard, pure leaf, 1-lb tins	do	15
do do 2-lb tins	do	28
Cocoa, Anchor, 1s	do	37
do do ½s	do	20
Bacon, Swift & Co.'s Clover	lb	20
Pepper, white, ¼s	tin	6
Tomatoes, Greenwich, 1-gal.	do	30
Vermicelli, Margerrie, 1s	pkg	6
Chocolate, Peter's Milk	do	26

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Mr. H. H. Rousseau, U. S. N., Culebra.
Mr. J. C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop,
Secretary, Ancon.

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Wm. Howard May, Secretary.
M. K. DePutron, chief clerk.
A. B. Nichols, Office Engineer.

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Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
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D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, chief clerk.

Louis K. Rourke, Assistant Division Engineer, Empire.

Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. McPherson, chief clerk.

W. G. Comber, Division Engineer, La Boca.
David V. Stratton, chief clerk.

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Sydney B. Williamson, Division Engineer, La Boca.
E. A. LeMay, chief clerk.

W. G. Comber, Division Engineer, La Boca.
David V. Stratton, chief clerk.

Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Moliter, Structural Work Design.
L. D. Cornish, H. T. Tucker, Masonry Design, Culebra.

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D. W. MacCormack, chief clerk.

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J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, chief clerk.

George D. Brooke, Superintendent Motive Power and Machinery, Culebra.
F. W. Doty, chief clerk.

Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.

W. M. Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, chief clerk.

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Max Dyer, chief clerk, Cristobal.
W. C. Haskins, chief clerk, Ancon.

Wm. Krugel, Stationer and Printer, Ancon.

Division of Map Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

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H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, chief clerk, Ancon.

Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon,
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, chief clerk.

C. E. Weidman, Chief, Fire Department, Ancon.
E. H. Hale, chief clerk.

Geo. L. Campen, Water Commissioner, Ancon.
Inocencio Galindo, legal adviser, Ancon.

Canal Zone Judiciary.

Canal Zone Judiciary: Supreme Court, Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, clerk of court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire.
Elbert M. Goolsby, Circuit Court clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court clerk, Cristobal.
Prosecuting Attorney: George M. Shontz, Ancon.
Acting Prosecuting Attorney: Thomas E. Brown, Jr., Ancon.
Translators: F. H. Sheibley and Charles M. Brown.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Major C. C. McCulloch, U. S. A., Executive Officer, Ancon.
Harry C. Bovay, chief clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John. L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, chief clerk.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
W. M. Wood, chief clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, chief clerk,

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Panama	*P.RR.*	*Wednesday*	*Sept.*	*18*
Prinz Sigismund	*H.-A.*	*Saturday*	*Sept.*	*21*
Atrato	*R.M*	*Saturday*	*Sept.*	*21*
Dunottar Castle	*P.RR.*	*Tuesday*	*Sept.*	*24*
Altai	*H.-A.*	*Saturday*	*Sept.*	*28*
Finance	*P.RR.*	*Monday*	*Sept.*	*30*
Colon	*P.RR.*	*Friday*	*Oct.*	*4*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Oct.*	*5*
Trent	*R.M.*	*Saturday*	*Oct.*	*5*
Advance	*P.RR.*	*Wednesday*	*Oct.*	*9*
Venetia	*H.-A.*	*Saturday*	*Oct.*	*12*
Panama	*P.RR.*	*Tuesday*	*Oct.*	*15*
Prinz Sigismund	*H.-A.*	*Saturday*	*Oct.*	*19*
La Plata	*R.M.*	*Saturday*	*Oct.*	*19*
Dunottar Castle	*P.RR.*	*Monday*	*Oct.*	*21*
Finance	*P'RR.*	*Friday*	*Oct.*	*25*
Altai	*H.-A.*	*Saturday*	*Oct.*	*26*
Colon	*P.RR.*	*Thursday*	*Oct.*	*31*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*2*
Tagus	*R.M.*	*Saturday*	*Nov.*	*2*
Advance	*P.RR.*	*Wednesday*	*Nov.*	*6*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*9*
Panama	*P.RR.*	*Monday*	*Nov.*	*11*
Prinz Sigismund	*H.-A.*	*Saturday*	*Nov.*	*16*
Orinoco	*R.M.*	*Saturday*	*Nov.*	*16*
Dunottar Castle	*P.RR.*	*Monday*	*Nov.*	*18*
Finance	*P.RR.*	*Friday*	*Nov.*	*22*
Altai	*H.-A.*	*Saturday*	*Nov.*	*23*
Colon	*P.RR.*	*Wednesday*	*Nov.*	*27*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*30*
Atrato	*R.M.*	*Saturday*	*Nov.*	*30*
Advance	*P.RR.*	*Monday*	*Dec.*	*2*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*7*
Panama	*P.RR.*	*Monday*	*Dec.*	*9*
Dunottar Castle	*P.RR.*	*Saturday*	*Dec.*	*14*
Prinz Sigismund	*H.-A.*	*Saturday*	*Dec.*	*14*
Trent	*R.M.*	*Saturday*	*Dec.*	*14*
Finance	*P.RR.*	*Thursday*	*Dec.*	*19*
Altai	*H.-A.*	*Saturday*	*Dec.*	*21*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*24*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec.*	*28*
La Plata	*R.M.*	*Saturday*	*Dec.*	*28*
Advance	*P.RR.*	*Monday*	*Dec.*	*30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Advance	*P.RR.*	*Wednesday*	*Sept.*	*25*
Trent	*R.M.*	*Wednesday*	*Sept.*	*25*
Venetia	*H.-A.*	*Saturday*	*Sept.*	*28*
Panama	*P.RR.*	*Tuesday*	*Oct.*	*1*
Dunottar Castle	*P.RR.*	*Sunday*	*Oct.*	*6*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Oct.*	*8*
La Plata	*R.M.*	*Wednesday*	*Oct.*	*9*
Finance	*P.RR.*	*Friday*	*Oct.*	*11*
Altai	*H.-A.*	*Saturday*	*Oct.*	*12*
Colon	*P.RR.*	*Thursday*	*Oct.*	*17*
Advance	*P.RR.*	*Tuesday*	*Oct.*	*22*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Oct.*	*22*
Tagus	*R.M.*	*Wednesday*	*Oct.*	*23*
Venetia	*H.-A.*	*Saturday*	*Oct.*	*26*
Panama	*P.RR.*	*Monday*	*Oct.*	*28*
Dunottar Castle	*P.RR.*	*Saturday*	*Nov.*	*2*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Nov.*	*5*
Orinoco	*R.M.*	*Wednesday*	*Nov.*	*6*
Finance	*P.RR.*	*Thursday*	*Nov.*	*7*
Altai	*H.-A.*	*Saturday*	*Nov.*	*9*
Colon	*P.RR.*	*Wednesday*	*Nov.*	*13*
Advance	*P.RR.*	*Monday*	*Nov.*	*18*
Prinz Eitel Freidrich	*H.-A.*	*Tuesday*	*Nov.*	*19*
Atrato	*R.M.*	*Wednesday*	*Nov.*	*20*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*23*
Panama	*P.RR.*	*Sunday*	*Nov.*	*24*
Dunottar Castle	*P.RR.*	*Friday*	*Nov.*	*29*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*3*
Finance	*P.RR.*	*Wednesday*	*Dec.*	*4*
Trent	*R.M.*	*Wednesday*	*Dec.*	*4*
Altai	*H.-A.*	*Saturday*	*Dec.*	*7*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*10*
Advance	*P.RR.*	*Sunday*	*Dec.*	*15*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Dec.*	*17*
La Plata	*R.M.*	*Wednesday*	*Dec.*	*18*
Panama	*P.RR.*	*Saturday*	*Dec.*	*21*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*21*
Dunottar Castle	*P.RR.*	*Thursday*	*Dec.*	*26*
Finance	*PRR.*	*Tuesday*	*Dec.*	*31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*31*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Atrato	*R.M.*	*Tuesday*	*Oct.*	*1*
Trent	*R.M.*	*Tuesday*	*Oct.*	*15*
La Plata	*R.M.*	*Tuesday*	*Oct.*	*29*
Tagus	*R.M.*	*Tuesday*	*Nov.*	*12*
Orinoco	*R.M.*	*Tuesday*	*Nov.*	*26*
Atrato	*R.M.*	*Tuesday*	*Dec.*	*10*
Trent	*R.M.*	*Tuesday*	*Dec.*	*24*

All Royal Mail steamers mentioned above and the *Prinz Eitel Friedrich* and *Prinz Sigismund* call at Kingston enroute to New York.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 23d of each month.

The Canal Record

Volume I. ANCON, CANAL ZONE, WEDNESDAY, OCTOBER 2, 1907. No. 5.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

Cold Storage Supplies.

The transport *Culgoa*, which the Navy Department loaned to the Isthmian Canal Commission for the purpose of bringing cold storage supplies to the Isthmus, arrived at Cristobal on Sunday last with 3,000 quarters of beef and 150 gallons of milk, all in excellent condition

There will be no further cold storage supplies for ten days, as the *Dunottar Castle*, which arrived on Monday last, is not equipped with a cold storage plant, and the *Finance*, which was booked to sail from New York on the 30th inst., has been taken off for repairs to her machinery. The Commissary prices, therefore, published this week will remain unchanged.

The next steamer to arrive will be the *Colon*, which sailed from New York on October 4. The *Finance* will take the place of the *Advance* on the regular schedule date, October 9.

Work of the Chagres Division.

The Chagres Division extends from the point where the Chagres river first enters the Canal prism near Matachin to the deep water in Gatun lake. It comprises that part of the Canal which coincides with the general direction of the Chagres river.

The excavation in the division will aggregate approximately 13,000,000 cubic yards, about 5,000,000 of which are estimated to be rock, and the balance earth. The distance from Matachin to Gatun, along the sailing line of the Canal is about twenty-three miles.

In this distance the Canal will intersect the river over twenty times, forming peninsulas which naturally divide the work into a large number of relatively small pieces. The ordinary low water surface of the river is lower than the bed of the Canal in the northern portion. In several of the southern peninsulas the contrary holds. Throughout most of its length the flood heights of the river are above the bed of the Canal.

All the high rock work will be done by dry excavation. The lower earth cuts will be done by hydraulic dredging, after the water in the lake has been raised to a suitable height. In some peninsulas the rock and earth are so mixed that it will be necessary to remove the earth in the dry with the rock.

The proximity of the river, its relative position in respect to the Canal bed, and the irregularity and suddenness of its floods are expected to cause situations which will vary with the local conditions existing at the different peninsulas.

Work has been commenced on the peninsulas at Tabernilla, San Pablo and Caimeto.

The excavation at Tabernilla is nearly completed to full width, and to the present grade of the Panama railroad at that point. The remaining ten feet of depth can not be taken out until the relocation of the Panama railroad is completed.

On the San Pablo peninsula, which is about a mile long, the clearing has been completed, the dump opened and one shovel has commenced operations.

On the Caimeto peninsula, opposite San Pablo, and also about a mile long, a strip has been cleared and the tracks and dumps are being developed. A shovel will commence operations on this peninsula at the end of this month.

Bids for Cement.

The Department of Locks and Dams has been investigating the question of procuring cement in the States, and it seems now that it will be practicable to procure cement in clinker form, transport it to the Isthmus, crush it and grind it here, and thus avoid the cooperage cost, which is, at least, one-third of the cement cost proper.

Bids will probably be requested soon for:

First—Furnishing cement, delivered in barrels or bags, at Colon.

Second—Furnishing it similarly packed, and delivered at any port on the Atlantic, Gulf or Pacific coasts.

Third—For furnishing it on the Isthmus in packages provided by the Commission. This method would probably involve making the cement clinker in the States, shipping it to the Isthmus and grinding it here.

Results of these bids will, of course, determine the policy of the Commission in the matter.

Gatun's Highest Steam Shovel Average.

The four steam shovels excavating material from the proposed site for the Gatun Locks removed on September 17, 5,219 cubic yards, averaging 1,305 cubic yards per shovel.

Panama Railroad Changes.

The present main line of the Panama railroad is to be diverted at a point just north of Paraiso and carried across the channel to the Canal prism on a trestle so that the Canal Commission may use the present main line between Paraiso and Pedro Miguel for the construction of the locks to be built at that place. This work will be begun within a few days and will be completed within three months.

On September 30, the railroad began using the new double track between Gatun and Bohio. This is the last stretch of double track that it is proposed to place on the present main line of the railroad. A "gauntlet track" of 500 feet will be used over the "black swamp."

Work is to be begun at once to convert the present terminal yards in Panama into a modern diamond yard of nine tracks. When this work is finished all of the old railroad will have been rebuilt and re-ballasted and the Panama terminal will equal the new one at Colon.

New Band Stands Ordered.

At the meeting of the Isthmian Canal Commission held on September 25, a resolution was passed directing that band stands be erected at Las Cascadas, Empire, Bas Obispo, Paraiso, Ancon, and Cristobal. It is understood that the band stand at Ancon will be placed in front of the Tivoli Hotel, opposite the entrance. The one at Cristobal will be placed in front of the Commission club house.

New Freight Houses Necessary.

The unexpected increase in the amount of the local and Commission freight handled by the Panama railroad has made it necessary to erect at once a new freight house at Empire 30 by 70 feet. Similar new houses will have to be erected in the immediate future at Culebra, Las Cascadas and Gorgona.

Obispo and Camacho Diversions.

Plans have been approved by the Chief Engineer for the Obispo diversion to the Chagres river. When this new channel is completed it will take care of all the water east of the Canal and north of the Continental Divide which now runs into the Canal and interferes with the progress of the work. Part of this water was taken care of by the French in a channel near the Canal prism. The Commission last year started a new channel further away from the prism and have completed it from near the Continental Divide to a point opposite Cunette where it now empties into an old French diversion channel and then into the Canal at Las Cascadas.

The water from the drainage area east of the Canal opposite Empire has several times broken through from the French channel into the Canal. The worst break occurred opposite Empire during the President's visit, half burying a steam shovel and a train of cars and flooding the Canal. The new channel is now completed north of this point so that no more trouble is anticipated.

The work is being pushed to the north of Cunette. A new bridge has been completed across the old French diversion opposite White House and track will soon be laid across this bridge following a grade made by the old French company. As soon as this track is laid connections will be made with approved new channel and several steam shovels will begin work at once. It is the intention to complete this channel to a point about one-half mile north of Las Cascadas, where it will empty into the head

NOTES OF PROGRESS.

(Continued)

of [illegible] ravine about one-half mile east of the Canal prism opposite Haut Obispo. The ravine leads straight to the Chagres river at Gamboa. The construction of this channel will require a great deal of dyke work reinforced with sheet piling. The dyke will be made by work trains in about the same way that dumps are being made except that the material selected will be such as will permit as little percolation as possible. The average width of the channel at the bottom will be 50 feet with the tops of the dyke 15 feet above the bottom. This will care for the largest floods and with a total length of 4½ miles will provide for a flow of 6,000 feet of water per second. On the west side of the Canal, the water that gives the most trouble in this district is the Camacho river. Diversion maps are being prepared for the smaller diversion channel required to keep this river from the Canal prism.

Colon Division Work.

During the last fiscal year the work of the Colon Division included the completion of the drainage ditch and the filling in of the lands at Colon; hydrographic surveys to show the results of the dredging done at the Colon terminal of the Canal and the survey of the Zone line from the Atlantic to a point approximately opposite Bas Obispo.

On the centre line of the Canal a line about 30 feet wide has been cut from Limon bay to the eighteenth mile. This centre line has been accurately measured and permanently marked. The Canal has also been cross sectioned, the cross sections being 100 feet apart or closer at the points where the elevation reaches 40 feet above sea level.

The work on the survey of the Zone boundary was completed in May last and the map showing the results of the field work was practically completed at the end of the period. Work is now in progress on a map made on a scale of 1-40,000 covering the entire Gatun lake and the Canal from Gatun to the sea.

Plumbing Operations.

The report of the Superintendent of Plumbing shows that since May, 1904, when the first American plumber entered the service of the Commission on the Isthmus, over 1400 Commission houses have been equipped with modern sanitary plumbing; 173,667 fittings have been installed, and the amount of pipe used aggregates more than 75 miles in length.

Commission Paint Work.

The amount of paint and kindred supplies needed on the Isthmus by the Commission is not generally realized by those who do not consider that here it is necessary to paint all those parts of the interior walls which in the United States would be covered with wallpaper or plaster. The temporary nature of most of the structures makes it necessary to paint the surfaces of floor joists that would not be painted if the buildings were what is called sealed. There are now about 652 painters in the service of the Commission and figures prepared by the Superintendent of Painting indicate that the amount of paint needed on the four-room Commission house known as type 17, about equals that required on the average fourteen-room house in the United States. Between the 1st of July, 1906, and the same date this year, the Painting Department used 1,959,744½ pounds of lead and a proportionate amount of other supplies.

Increased Club House Facilities.

The Isthmian Canal Commission, at its meeting on September 25, authorized the installation of barber shops in the club houses at Empire, Gorgona, and Cristobal. At the same time it authorized the construction of "bleacher" seats at the rear of the runways of the bowling alleys, at each of the four club houses.

President Roosevelt's Extended Trip.

President Roosevelt has extended his tour through the Southern States by adding seventeen days, which he will spend in a hunting camp in the northeastern corner of Louisiana. He left Oyster Bay for Washington on September 25, and started on his tour on September, 29, going to Canton, Ohio, to participate in the unveiling of the monument to the late President McKinley on September 30, He will speak at Keokuk, Ia., October 1, at St. Louis on October 2, at Cairo on October 3, and at Memphis, Tenn., on October 4, after which he will start for the camping ground, remaining there until October 21, when he will go directly to Vicksburg, where he is booked for a speech. He will then begin his return trip to Washington, making addresses at Hermitage and Nashville, Tenn., on his way to the Capital, where he will arrive on the afternoon of October 23.

Ancon Knights of Pythias Lodge.

All persons desiring to become members of the lodge of Knights of Pythias to be installed at Ancon, C. Z., write to the undersigned and the information will be given.

SAM B. DANNIS, Ancon, C. Z.

Empire Beats I. C. C.

The last game of baseball in the League series was played at Empire on Sunday, September 22, resulting in the defeat of the I. C. C. team by Empire by a score of 2 to 0. Following is the score:

I. C. C.

	A.B.	R.	H.	P.O.	A.	E.
Bryan, 3b	4	0	1	2	2	0
Huff, M. B., c.f.	4	0	2	0	1	0
Avis, r f	4	0	0	1	1	0
South, 1b	4	0	0	9	0	2
Yingling, c	3	0	0	9	2	1
Fleishman, s.s.	3	0	2	2	3	1
Huff, J. B., l.f.	3	0	0	0	0	0
Ellis, 2b	3	0	1	1	1	1
Shannon, p	3	0	1	0	9	1
Totals	31	0	7	24	19	6

EMPIRE.

	A.B.	R.	H.	P.O.	A.	E.
Stevens, c. f.	4	0	1	2	1	0
Toone, 1b	4	1	1	1	0	0
Fluharty, 3b	4	0	0	5	3	1
Murphy, l.f.	3	0	1	3	0	0
Fussner, 1b	2	1	1	8	0	1
McCusty, c	3	0	0	5	1	0
Ghizoni, s.s.	2	0	0	0	3	1
Johnson, r.f.	3	0	0	0	0	0
Henry, p	2	0	0	3	11	0
Totals	27	2	4	27	19	3

Innings	1	2	3	4	5	6	7	8	9	
I. C. C.	0	0	0	0	0	0	0	0	0	—0
Empire	0	0	0	2	0	0	0	0	x	—2

Stolen bases—I. C. C., 1; Empire, 3. Two-base hit—Huff, M. B. Double play—Huff, M. B., to Bryan to Ellis. Base hits—Off Henry, 7; off Shannon, 1; off Bryan, 2. Strike outs—By Henry, 5; by Shannon, 7. Umpire—Dr. Summersgill. Scorer—W. G. Manley. Time of game—Two hours.

Mr. F. L. Gorham, postmaster at Empire, has been made acting manager of the Empire club for next season.

Pan-Hellenic Society.

A meeting of the Pan-Hellenic Society of the Canal Zone will be held at Hotel Tivoli on Saturday, October 5, 1907, at 7 o'clock p.m. All members and all other Greek letter fraternity men are requested to be present as plans will be discussed for the german to be given by the society.

WALTER EMERY,
Secretary.

PERFORMANCE OF STEAM SHOVELS.

Culebra Division.

Period.	Average number of steam shovels at work.	Number of working days in month.	Output per shovel per day, cubic yards.	Output per shovel per month, cubic yards.	Rainfall—Inches. Empire.	Rainfall—Inches. Culebra.	Maximum temperature in sun at Empire. (Degrees Fahrenheit.)
1906—							
January	12.83	26	363	9,430	1.28	1.19	....
February	12.48	23	587	13,494	0.57	0.64	....
March	12.37	27	716	19,335	0.45	1.34	....
April	12.33	24	720	17,289	11.42	8.43	....
May	12.41	27	581	15,684	7.54	7.25	....
June	14.81	26	539	14,026	6.92	8.94	123
July	16.64	25	378	9,441	14.61	20.26	127
August	16.93	27	536	14,461	11.84	12.97	132
September	21.33	24	568	13,664	7.41	6.22	130
October	22.67	27	532	14,373	3.97	8.46	128
November	20.46	24	459	10,833	21.05	19.19	120
December	22.68	25	491	12,267	8.15	9.09	108
1907—							
January	31.04	26	702	18,248	0.08	0.00	104
February	39.87	23	674	15,986	0.13	0.49	108
March	43.88	25	741	18,530	0.16	0.08	105
April	44.12	26	765	19,884	0.09	0.04	110
May	31.70	26	833	21,674	6.22	7.45	118
June	38.28	25	651	16,266	13.53	14.74	118
July	43.38	26	680	17,670	9.85	9.42	118
August	39.70	27	729	19,680	11.24	11.81	120

The performance of the shovels is based upon the working day of eight hours,

The performance of shovels in May was somewhat abnormal on account of labor disturbances. On May 13 so large a number of steam shovel engineers and cranemen had resigned or quit work that but 13 steam shovels were working. As there was no disturbance in the Transportation Department, there was, for a time, available for each shovel an amount of transportation out of all proportion to that used under normal conditions.

PRESS VIEWS OF THE CANAL.

A Sentimental Enterprise.

There are now about 40,000 persons on the payroll at Panama, and when the additional shovels are set to work this number will probably be increased to 50,000. The amount of six and a half millions a month now available has already been found insufficient, and will probably have to be increased to eight millions a month, or about $100,000,000 annually, if the dirt is to continue to "fly." If the work of excavation proceeds during the next five years at this accelerated rate, therefore, the amount to be needed for excavation will exceed $500,000,000, in addition to the $100,000,000 or more already invested.

But there is the huge dam at Gatun and the system of locks to be built, which, the engineers say, will require more time than the work of excavation. We believe there is, as yet, no definite and trustworthy estimate of the cost of this part of the Canal construction. It may be guessed that this item will not be less than $250,000,000. There is probably no good reason to expect the Canal to be finished according to the present plans for a sum which will bring the total expenditure by the United States within a thousand million of dollars. Then we shall be able to float our warships across the Isthmus of Panama, but the bulk of the freight traffic over the Central American divide will probably continue to go over the Tehuantepec railway, unless the Canal tolls shall be made so low as to be merely nominal. The Panama Canal seems to be a sentimental, rather than a business enterprise.—*Hartford Times.*

A Point Overlooked.

It will irritate Poultney Bigelow to learn that the Panama Canal is too narrow. He had not thought of that.—*Chicago Tribune.*

Width of the Locks.

The fact that naval constructors in Great Britain are discussing battleships with a displacement of 30,000 tons has drawn attention to the fact that the locks of the Panama Canal will be only 100 feet wide. If battleships of greater beam than those now under construction are undertaken, the Canal, unless the plans for the locks are changed, will be useless for the first-rate warships.

When locks of 100 feet width were proposed the beam of battleships did not exceed 73 feet, thus leaving a margin of 13 feet and 6 inches on either side for the largest of battle craft.

The New York and the Delaware are to have 85-foot beam, thus reducing the margin, so far as they are concerned, to seven and a half feet on each side. Assuming that the proposed 30,000-ton ships would be built in proportion, their beam would not be less than 95 feet and probably 97. Lock walls only affording 100 feet of channel would be too near each other for the safe passage of ships having greater width than 90 feet. Even with ships of 85-foot beam the factor of safety is small. The slightest deviation from their course would send the craft against the lock wall with a force great enough to stave in the side of the ship and probably endanger the lock walls.

The question of what ought to be done has been informally discussed between Army and Navy officers connected with the construction of the Canal and the designing of new ships. To reduce the beam of the new battleship would mean an increase in the draught, not a desirable thing, because entrances to many harbors now are less than the draught of the New York and the Delaware. Besides sills on dry docks would not be deep enough to permit the entrance of the new battleships for repairs were the draught materially increased. It is understood that the Navy view shortly will be presented to the War Department with the recommendation that the locks be widened.—*Washington Dispatch to The New York World.*

Sea Level Project Again.

A story has been told that the lock plan was the result of machinations by the transcontinental railroads that have always been opposed to the Canal. Be this as it may, it is well known that a majority of the distinguished engineers who formed the Board of Consultation and Advice fully declared a verdict in favor of a sea level canal.

The advent of the great steamship *Lusitania* into the merchant marine of to-day can not but arouse thoughtful persons to the necessity of having a canal that will carry in security, from sea to sea, the greatest ships that float, and it may be that there will be, in the next Congress, Senators or Representatives who will bring up the subject and expose the weakness of the plans that have been adopted.—*New Orleans Picayune.*

Final Cost of the Canal.

The dirt is now flying so fast on the Isthmus that it will take about a third more money to pay the bills for the year ending June 30, 1908, than was estimated when the sum of $27,161,000 was appropriated. Not only are they digging the ditch with unprecedented speed, and using up material with proportionate rapidity, but they have begun to work on the preliminaries of the big locks and dams, including the huge dam that is to be built at Gatun. As the locks are to be made of concrete, the engineer in charge points out that if the work upon them is to begin in the twelvemonth beginning July 1, 1908, the plant for manufacturing the concrete ought to be put up this year. To do this, and to proceed with the excavation at the present rate of expedition will require an immediate outlay of $8,000,000 in addition to the appropriation now available. That on the opening of Congress early in December the President means to recommend an extra appropriation large enough to meet the contemplated deficit of $8,000,000 may be inferred from the fact that the members of the committee of the Senate and House of Representatives who will have charge of next year's Canal budget are presently to visit the Isthmus and, from personal inspection, report upon the progress and pecuniary requirements of the work. There is no doubt that the sooner the Canal is finished and in operation, the less will have been the aggregate cost for, of course, we must debit ourselves with interest on the sums advanced, and the interest account becomes swollen with every year during which the Canal is earning no money. Another good reason for permitting the appropriation to be exceeded at this time is that the excavation is now being prosecuted by means of 63 steam shovels, and that 30 more of these are now on their way to Colon. If these also are put in operation the total quantity of dirt made to fly will approach closely 2,000,000 cubic yards a month.

Nobody now doubts that the cost of the Panama Canal will immensely exceed the original estimate. If we take into account the $40,000,000 paid the French Canal Company, and the $10,000,000 received by the Republic of Panama as compensation for the franchise, we have already appropriated nearly $130,000,000 for the waterway. If the $8,000,000 be added to the $27,000,000 already authorized for the current fiscal year the amenedd rate of outlay will, of course, exceed $35,000,000 annually. That will be equivalent to $140,000,000 for the four years ending June 30, 1912, which, with the $135,000,000 previously expended, will [illegible] a total of $275,000,000. Nobody expects that the interoceanic waterway will be ready for navigation by the middle of 1912, and we may, therefore, predict with confidence that the total of it will exceed $300,000,000, or more than double the original estimate. That is a fact we may as well make up our minds to face. In for a penny in for a pound. We pledged ourselves to the world to perform a work of international importance which France proved unable to accomplish, we are going to keep our word.—*Harper's Weekly.*

An Englishman's Impressions.

"The American engineers are making great progress in the construction of the Panama Canal, and I could see nothing to warrant a disbelief in their assertion that the great waterway will be completed in eight years," said Alexander F. Warren, of London, who has returned from a business trip to the Canal Zone and is now on his way to St. Louis. "One really marvels at the tremendous amount of work that has been accomplished since the big task was undertaken, and yet a great deal more can be accomplished in the same length of time now, for, of course, a good deal of time was lost in the beginning in getting things in readiness and in perfecting the necessary sanitary arrangements.

"I made a short trip over the Isthmus when the French company was at work. Their operations were conducted in a slip-shod, desultory sort of way. But the Canal now is an immense thoroughly-organized machine in which every one of the thousands of workmen is a cog. It is inspiring to see the men at work.

"Even the humblest laborer seems to feel a personal interest in the enterprise. I talked with a number of the section foremen and timekeepers, and they all expressed themselves as well pleased with their treatment and with general conditions. Of course there were some complaints about the hotels and the commissary supplies, but even on that score I don't think there is any room for a very grievous complaint. The men are encouraged to file complaints of any real or imaginary abuses, and every complaint is investigated and the blame placed where it belongs."—*New Orleans Picayune,* Sept. 20.

No Lack of Funds.

We have undertaken the task of canal building and it can not be completed too soon. There have been in the past repeated complaints of delay and several chairmen have successively resigned after failing to remove the cause of these complaints. It is evident that the problem of efficient organization has been solved. The work appears now to be progressing satisfactorily and there will be no complaint against excess expenditures so long as the money is "moving the dirt." If the Canal Commission can point to work actually accomplished to warrant its request for additional funds, Congress will undoubtedly see to it that they are forthcoming.—*New Orleans Times-Democrat.*

Need for Speed.

The fact that the fleet for the Pacific will have to sail 15,000 miles to reach a point which could be reached in 5,000 if the Canal were completed is an eloquent reminder that that short-cut ought to be pushed with all possible speed. The country is spending a good deal of money in canal building but it is willing to spend more if the additional outlay will bring completion a year or two earlier. The Panama issue is one of the most interesting questions which will come before Congress this winter.—*St. Louis Globe-Democrat.*

A CRITIC ANSWERED.

Digging at Panama—No More Done Now than Was Done by the French Eighteen Years Ago.

To the Editor of the New York Times:

I read with a great deal of interest the news which you give us about the amount of work being accomplished on the Panama Canal, and the praise it has drawn from President Roosevelt. But I am led to wonder whether the many adverse criticisms which have been made of the work and the methods adopted on the Isthmus at various times were not about correct. In looking over my papers, I find that in the Colon section, with three small dredges, we [illegible] in one month 120,000 cubic [illegible] nearly the amount which th[illegible] "splendid work," and [illegible] ago, and in the month of July.

The amount of work [illegible] I do not recall, but it appears [illegible] section (dredging) the output [illegible] greater than it was during the French régime.

G. M. DOUGLASS.

New York, Sept. 9, 1907.

Real Digging at Panama.

To the Editor of the New York Times:

Your interesting correspondent, G. M. Douglass of New York, in criticising Col. Goethal's splendid report on Canal progress, says he is led to wonder whether the many adverse criticisms which have been made of the work and methods adopted on the Isthmus at various times were not about correct.

It would be a revelation to him and many other skeptic critics—past and present—if they were to visit the Isthmus by way of vacation and spend a few days along the line of work, away from the saloon centres of Colon and Panama, and witness the wonderful change in the country accomplished during the past two years.

If Mr. Douglass will kindly look again at the old French papers he speaks of he will notice that in the month of July, eighteen years ago, the dredges he refers to in the Colon district accomplished about all the work "of any importance" that was done at that time on the Isthmus; and, furthermore, those dredges he speaks of "in the Colon section" in the month of July were working in soft mud, sand, shells, and gravel, about as easy to work as an oyster bed, while the work of to-day is mostly rock and indurated clay. A. W. WYNDHAM.

New York, Sept. 12, 1907.

ZONE POLICE FORCE.

Official Statistics of Its Composition and Work.

On July 1, 1907, the authorized strength of the Canal Zone Police Department was 290, this force being divided among eight main stations, in addition to the headquarters of the department and twenty-nine outposts, or sub-stations. A number of officers were also detailed on train-guard service on the Panama railroad and for the guarding of pay-cars of the Isthmian Canal Commission and the Panama railroad.

The total number of arrests for the year ending June 30, 1907, was 6,236, and the principal charges on which same were made, with number of arrests on each charge, were as follows:

Abusive language	136	Malicious mischief	70
Assault	203	Obscene and indecent language	69
Assault and battery	128	Petit larceny	412
Burglary	48	Resisting officer	116
Disturbing the peace	256	Selling without license	64
Disorderly conduct	1176	Trespassing	469
Fighting	229	Violation of sanitary regulations	925
Fraud	60	Vagrancy	263
Grand larceny	88	Deportations	80
Intoxication and disorderly	787		

There were in all 84 different charges on which arrests were made, and out of the total number of persons arrested 365 were females, as against 5,871 males. The total number of convictions resulting from these arrests were 5,193.

As against the 6,236 arrests made during the fiscal year ending June 30, 1907, there were 3,355 arrests made during the previous fiscal year.

The total amount of Police Department pay-rolls for the fiscal year was	$150,688.60
The total amount of fines imposed on members of the force during that period was	452.39

Total number Zone prisoners on hand June 30, 1906	45
Total number Zone prisoners convicted and sentenced during fiscal year ending June 30, 1907	85
Total number discharged and pardoned during fiscal year	48
Number on hand at close of fiscal year	82

The crimes for which the Zone prisoners on hand at close of fiscal year were sentenced was as follows:

Arson	2	Larceny	8
Attempt to murder	3	Obstructing railroad track	1
Burglary	18	Manslaughter	2
Crime against nature	1	Murder	1
Embezzlement	1	Rape	3
Forgery	15	Sodomy	1
Grand larceny	23	Rioting	3

Of the above number, 52 were able to read and write and 30 unable to do so.

Their occupations and nationalities were as follows:

OCCUPATIONS.

Blacksmith	1	Machinist	4
Brakeman	2	Messenger	1
Carpenter	5	Moulder	1
Clerk	1	Oiler	1
Cook	1	Porter	1
Farmer	1	Sailor	5
Fireman	2	Switchman	1
Foreman	1	Vendor	1
Laborer	48	Watchman	1
Laundress	2	No occupation	2

NATIONALITIES.

American	8	Italian	1
Antiguan	7	Jamaican	14
Barbadian	17	Nicaraguan	1
Chilian	4	Panamanian	9
Colombian	8	Peruvian	4
Danish	1	Porto Rican	1
Ecuadorian	1	Spanish	3
East Indian	1	St. Lucian	1
German	1		

The ages of these prisoners, of whom the youngest was 13 years of age and the oldest 77 years, may be classified as follows:

Under 15 years	1	40 to 50 years	4
15 to 30 years	63	70 to 80 years	1
30 to 40 years	13		

The cost of subsisting, clothing and guarding Zone prisoners for the fiscal year ending June 30, 1907, was	$16,449.46
The value of the work performed by these prisoners for the same period was	9,438.80

Coroner's inquest was held in the case of 136 deaths during the fiscal year ending June 30, 1907, the causes for the largest number of deaths being:

Railroad accidents	58	Drowning	28

The monthly report of the Chief of Police of the Canal Zone for the month of August, 1907, shows that 508 arrests were made, divided among the various towns as follows:

Ancon	16	Las Cascadas	32
Las Sabanas	3	Gorgona	42
La Boca	50	Bas Obispo	19
Corozal	3	Tabernilla	19
Pedro Miguel	13	Bohio	3
Paraiso	23	Gatun	29
Culebra	24	Cristobal	114
Empire	78		

There were 35 different nationalities represented among the 508 arrests, as follows:

Americans	33	Hebrews	3
Antiguans	11	Irish	3
Austrians	1	Italians	6
Barbadians	104	Japanese	1
Canadians	1	Jamaicans	96
Chilians	7	Martiniquans	18
Chinese	8	Norwegians	3
Colombians	29	Panamanians	18
Costa Ricans	1	Portuguese	2
Cubans	3	Russians	3
Danes	1	Scotch	2
English	9	Spanish	57
Ecuadorians	1	St. Lucians	21
French	11	Swedes	1
Greeks	9	Syrians	2
Germans	6	Trinidadians	10
Guadaloupians	21	Venezuelans	2
Haytians	5		

The department has 41 different nationalities on its arrest books.

The number of municipal prisoners on hand at the end of the month was	67
Amount of pay-roll for the month was	$14,341.89
Amount of fines imposed on police officers was	42.00
The total strength of the force at the end of month was	201

Smoker for Mr. Cummings.

THE CANAL RECORD:

On the eve of the departure of Mr. E. C. Cummings, master mechanic of Gorgona shops, who left the Isthmus for his vacation on September 20, a smoker was given in his honor by some of the foremen and clerks in his office. It would perhaps be more properly described as a surprise party, for it was a spontaneous coming together of the men to bid their chief goodbye, and revealed an unanimity of loyalty and enthusiasm unique at shops of this magnitude. The gathering was not planned in advance, with the result that while nearly all the foremen and heads of the different divisions of the office work were present, a few did not attend, who would have been there had they known the others were coming. A more completely representative body of the same number could not have been selected from the employees under Mr. Cummings' jurisdiction. It was the writer's good fortune, having been sent to Gorgona shops for temporary duty from the Culebra office, to participate.

Mr. H. C. Dew, chief clerk, was master of ceremonies, which were as unceremonious as could be desired. Songs and short speeches were interspersed, and the poet who exclaimed—

> Oh! for a bowl of fat canary,
> Rich Palermo, sparkling sherry,

would have had his longings gratified as near as such gratification would be possible on the Isthmus, for those excellent purveyors had rustled in a buffet lunch, and liquid refreshments were not lacking. The talks were comprehensive, in that they covered a wide range of subjects—from centrifugal to centripetal forces in Isthmus politics to Bohemia and Chicago—but all led up to the expression, in one form or another, of the speaker toward Mr. Cummings, sentiment of affection, loyalty and well wishing. The spirit of cooperation shown toward their chief by men, many of whom have worked under Mr. Cummings for the past two years or more, explains the results accomplished by Mr. Cummings and the organization built up by him, and augurs well for the future account Gorgona shop will give of itself. If there be any who think that daily contact with material things rob men of their sentiment and poetry, they need to modify their views, on the contrary, the highest poetry is that of the humdrum life and the healthiest sentiments are those of the humdrum life. The ability to turn an axle, and some were present who served their apprenticeship along such lines, does not preclude the faculty to turn a sentence, and one who has rivetted a boiler might, as well as another, drive home some fact. I might also add, that one whose work has been mainly to record and transcribe the thoughts of others might also have ideas of his own.

These are not new ideas and perhaps have no place here. As an outsider, I wish to testify to the good fellowship, entertainment and instructive and humorous remarks made during the course of the evening. Before adjournment, Mr. Cummings made a speech to the boys—a simple heart to heart talk—showing that he fully appreciated the cordial cooperation and gave due credit to same for the results, and that he had studied deeply and well the conditions that have existed, the obstacles that have been overcome and that new conditions that are yet to be met as the organizations over the Isthmus become more perfected and concentration of authority greater in consequence. A thought felicitously expressed by Mr. Cummings, and one which I am sure appealed to every one present, was that those who had gone before, men who had previously the same position of some of those present, had each contributed something to the result, and that he and others present were indebted to such men.

In all, it was a gathering to warm the cockles of the heart, and if the good wishes of the rank and file employed at Gorgona shops can temper the wind, Mr. Cummings' voyage and his sojourn in the States will be all that could be wished for him, and he will return reinvigorated after a well-earned vacation.

Those present were:

From Gorgona shop: Sir Knights E. C. Cummings, A. T. Corcoran, John J Eason, H. B. Mattimore, E. M Boyle, C. Metzger, A. J. Sweet, F. B. Ferrebee, L. C. Cole, J. B. Brown, C. H. Kunce, J. L. Little, Wm. Morrison, C. P. Knowlton, H. C. Dew, P. W. Davis, William Taylor, F. G. Swanson, N. D. Jackson, S. L. Lux, and R. Wilson. From Culebra: (the writer.) From the Material and Supply Department at Gorgona: Mr. C. B. Sexton, and Mr. R. K. Morris.

A. B. LACY.

Culebra, Sept. 23.

THE WOMAN'S MOVEMENT

Organization of Clubs at the Principal Zone Towns.

By Miss J. Macklin Beattie.

During the past two weeks a very interesting movement among the women on the Canal Zone has been going forward which has resulted in the organization of clubs in the various stations along the line.

Miss Helen Varick Boswell, of the Federation of Women's Clubs in the States, arrived on the Isthmus about the middle of September for the purpose of looking over the field, with the view of making suggestions which would encourage the women residents here to form organizations to be affiliated with the General Federation of Women's Clubs, which has a membership of 800,000 women.

Meetings have been held in the various places along the line, the Commission club houses managed by the Y. M. C. A. having been placed at the disposal of the women for the occasion. Miss Boswell was the guest of honor at each event.

At Culebra a preliminary meeting was held, when the ladies present signified their intention of joining a club should such be formed. There had already been a movement to organize a club, of which Mrs. W. M. Belding was president, but there had been no further formal organization effected. At the meeting Miss Boswell gave an informal talk, in which she stated clearly her reason for coming down. It was her wish to meet the American women on the Zone and to confer with them, to learn their wishes regarding the organization of clubs. It seemed to her that clubs could be formed in the larger centers, Ancon, Culebra, Gorgona, Empire and Colon, with branches, or separate organizations in the neighboring settlements, each club to be under its own title, all to be affiliated under the title of the Canal Zone Women's League, or other suitable appellation. The club should be for social and educational purposes, to promote social feeling among the women, to enable them, as an organization, to take a part in municipal matters, governing the schools, and matters where a woman's wisdom may be considered to go far—and for the purpose of study, Spanish classes could be formed, a good teacher engaged, and members admitted to the class at club rates. She spoke of the real good that women are doing here, of the influence of the sight of domestic life and happy homes on the young men. While the life of every woman here is a busy one, there is time to be kind. "We hear a lot about the 'fatherhood of God,' 'the brotherhood of man.' Let us prove that there is a sisterhood of women," said Miss Boswell. "The influence of their development of their social spirit is scarcely to be overestimated." All the women present signified their intention of joining a woman's club should one be organized, but owing to the absence of Mrs. Belding, the president of the Culebra club, as it stood, it was not considered expedient to proceed upon any decided measure.

Last Wednesday a second meeting was held, having been especially arranged as a reception to the newcomers in Culebra, about 75 being present. The informal reception held in the reading room was followed by a short musical programme given by Mrs. E. J. Banta and Mr. Witte, introduced by Mrs. Belding.. Miss Boswell made an address in which the substance of her former talk was repeated. Following this it was unanimously decided to take the preliminary steps toward organizing a club at once. Thirty-nine of the women present enrolled as members, and the following officers were elected: Mrs. W. M. Belding, president; Mrs. W. M. Childs, secretary; and Mrs. E. S. Hulen, treasurer. By unanimous vote it was decided to elect Mrs. Wm. L. Sibert honorary president, pending her acceptance of the office upon her return from the States, when a committee of ladies would wait upon her. As Mrs. Sibert has already expressed her willingness to take an active part in a woman's club, there is little doubt that she will become a leading spirit.

At Gorgona, something of a similar organization and reception took the form of a formal club meeting, the president, Mrs. Morris, in the chair. Gorgona has already a woman's club of 30 members, with officers and a constitution. This club was organized in July; its purpose is almost purely social. There is a very well developed social spirit throughout the community. The club has committee for visiting the sick in the hospitals and for calling upon the newcomers. Unofficially connected with the organization, but still working along the same lines, is the work done in the Gorgona Commissary. The women make it a point to meet there in the morning to speak to the newcomers and help them over the rough places by advice and kindness. The Gorgona club promises to be one of the most active along the line. At the request of the president, Miss Boswell gave an interesting address, in which she congratulated the members on their enterprise. Before she leaves it is expected that the committee will confer with Miss Boswell on the subject of enlarging their scope of work and affiliation with the General Federation.

The officers of the Gorgona club are Mrs. Frank Morrison, president; Mrs. Whitney, vice president; Mrs. Hay, secretary, and Mrs. Calvit, treasurer. The club has its meetings twice a week, one occasion being social, and the other devoted in a measure to business matters.

In connection with this general club movement, a preliminary meeting was held at Empire on Thursday last, when a committee of ladies met Miss Boswell, among them being Mrs. Miracle, Mrs. Beck, Miss Eunice Browning, Mrs. Bailey, Mrs. McTyier, Mrs. Rainwater, Mrs. Gorham, Mrs. Meader and Miss Heller. There has hitherto been no club in Empire, and the meeting was welcomed with enthusiasm. A meeting for the perfecting of arrangements was held on Thursday, October 3.

A large number of women attended a reception at Cristobal on Friday afternoon. Invitations had been issued, a temporary committee on arrangement having been formed. The committee included Mrs. Lorin C. Collins, Mrs. Walter G. Tubby, Mrs. M. C. Rerdell, Mrs. John Burke, Mrs. Charles Guckel, Mrs. Claude C. Pierce, Mrs. F. H. Powell, Mrs. E. Lewis Baker and Miss Pritchard. The rooms of the club house were beautifully decorated, and the occasion was one of festive character. It had been previously arranged that the organization of a club should be effected at this meeting and a large number of the women present signified their intention of becoming members. The following governing officers were elected: President, Mrs. Lorin C. Collins; vice president, Mrs. E. Lewis Baker; secretary, Mrs. Guckel; treasurer, Mrs. Walter G. Tubby. Mrs. Collins was formerly vice president of the Chicago Woman's Club, taking the duties of president for a long period. All the Camp Elliott ladies came down for the reception. Miss Pritchard of the Colon hospital and a number of the nurses of her staff were present. Gatun was represented by a party of the women residents. Guests of distinction were Mrs. Mendez and Mrs. da Sylva, wife and daughter of Governor Mendez.

OFFICIAL CIRCULARS.

Sick Leave.

Circular No. 144:

Attention is called to the fact that the regulations governing payment on account of sick leave are not rigidly enforced.

The regulations adopted at the 129th, meeting of the Commission, effective July 1, 1907, provided that—

> All regular employees above the grade of laborer, unaccustomed to a tropical climate, may be granted fifteen day's sick leave with pay for each six month, service, on the certificate of an authorized physician in the service of the Department of Health of the Isthmian Canal Commission that the employee *has been unable to work on account of illness contracted through no fault of his own*, or because of injury.

No time will be allowed for sick leave unless the employee furnishes a certificate from a physician in the service of the Commission, specifically stating that the illness was contracted through no fault of the employee. The certificate must be on the prescribed form, signed by the attending physician and not by proxy, and must be presented by the employee immediately upon his return to duty.

It is the intention that sick leave with pay shall be granted for legitimate causes only, and unless the employee's illness comes strictly within the meaning of the regulations, he shall not receive payment for time lost.

Geo. W. Goethals,
Chairman.

Culebra, Sept. 23, 1907.

To All Concerned:

The following are hereby appointed members of a Board for the purpose of defining specifically the duties of the crews of locomotives controlled by the Isthmian Canal Commission, in respect to the care, repair, etc., of their machines:

Mr. L. K. Rourke, Assistant Division Engineer, Culebra Division.

Mr. Arthur Sessions, Acting Superintendent of Transportation, Culebra Division.

Mr. E. J. Banta, Mechanical Engineer.

Mr. J. C. Johnson, Master Mechanic, Empire Shops.

Two representative locomotive engineers (to be selected by Messrs. Rourke and Sessions.)

The Board to meet at such place and time as agreed upon by Messrs. Rourke and Banta.

Geo. W. Goethals,
Chairman and Chief Engineer.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

CULEBRA.

A two months' term of instruction in Spanish has just been concluded. There were two classes with 24 members enrolled. A second term of advanced work was begun last Thursday, and will continue for ten weeks. A new class for beginners was organized Wednesday. These two classes will meet each week on Thursday and Wednesday nights, respectively.

The following is the result of the preliminary billiard tournament, which has just been concluded:

Name.	Games- Won.	Lost.	Percent.	Total Run.	High Run.
J. H. Perrault..	12	0	1000	1 240	12
F. W. Doty......	8	2	800	1.043	9
M. Herz.....	9	3	750	.865	9
J. P. Avis....	8	4	667	.733	8
C. W. Bayne....	6	4	600	.924	8
G. S. Johnson..	4	4	500	.760	7
G. W. Strong...	5	6	455	.677	6
J. P. Thayer....	4	5	444	.785	7
H. H. Baumer.	3	7	300	.600	6
C. C. Collins...	3	8	273	.715	7
M. E. Rupp.....	3	8	273	.502	5
S. Herz...........	2	8	200	.688	10

Members with Bowling Scores of 200 and Over.

C. P. Delahanty..248-212-201-216-208-205-213. 220-203
B. A. Fogg..... 237-208-202
E. J. Lamster......228-223-220-213-212-202 203-214-201
F. C. Roberts..... 226-204
Mr. Erickson......224
R. H. Oliver..... ..227-221-212-201-212-206
Whaler...............202-202
Yingling............ 207-212
W. Winters........211-200-209-212-222-216
G. L. Scheper......214-207-206-201
W. P. Fickett.....207
Fullman..... 201-203
H. A. Marquiss..207
R. W. Smith......201

Y. M. C. A. Bowling League.

STANDING OF TEAMS SEPT 23.

Team.	—Number of Games— Played.	Won.	Lost.	Per cent.
Cristobal..............	21	13	8	.619
Empire...................	21	13	8	.619
Gorgona......	21	12	9	.571
Culebra.	21	4	17	.191

EMPIRE.

A second smoker was given last week, and about 3,000 men were present. The members entered heartily into the various features of the entertainment provided by themselves. Music was furnished by an orchestra and a double quartette.

Two classes have been organized for the study of Spanish with an enrollment of 35. Mr. F. H. Shilbley has been engaged as instructor.

The excellent barber service which has been installed is filling a long felt need.

The I. C. C. band will give a concert in the entertainment hall of the club house Wednesday evening, October 9, Mr. Chas. E. Jennings, director. The white public are cordially invited.

Mr. Geo. B. Carson, office secretary, is at present confined at the Ancon hospital.

CRISTOBAL.

The Cristobal team won three straight games in the match with Culebra played Saturday night at the Cristobal club house making a total of 2,488 pins as against 2,286 for Gorgona. The highest team score made thus far in the League was made by Cristobal with a total of 928 pins.

Much good natured rivalry exists between teams representative of the single men and the married men in the Material and Supply office. Several match games have been played with the benedicts in the lead. The games the last week, however, gave the bachelors their revenge. The line up is as follows:

Married men—Hagemann, Leonard, Dyer, Jackson, Burdge.

Single men—Happman, Bryon, Gillmartin, Willumsen, Pike.

The single men won three straight games with a total margin of 231 pins.

At a meeting of the Board of Managers of the Y. M. C. A. Bowling League, held at Cristobal Saturday night, the following officers were elected: L. A. Durand, Empire, president; C. L. Van Den Heur, Gorgona, vice president; H. A. Parker, jr., secretary-treasurer; Fred. Larson, Culebra, official scorekeeper; A. Bruce Minear, general secretary, Y. M. C. A., presiding officer at meetings.

The rules governing the games were revised and amended covering several minor points. The schedule was lengthened from 36 to 54 games. The following prizes were decided upon:

First—Challenge cup to be given by the Y. M. C. A. of the Isthmus to the winning team, this cup to become the permanent property of the Y. M. C. A. winning it twice.

Second—Prize for the highest individual average for the season.

Third—Prize for the second highest individual average for the season.

Fourth—Prize for the highest individual average for three consecutive games in one night.

Fifth—Prize for the highest individual score for one game.

Sixth—Four prizes, one each to the player rolling the highest average for each team.

Seventh—Six prizes; one each to the players on the winning term.

It was decided that no man is eligible to any prize who has rolled less than 50 per cent of the games scheduled and no man is eligible to win more than one of the first six prizes.

GORGONA.

On Wednesday evening October 7, Miss Helen V. Boswell, of the Federation of Women's Clubs, will speak on "Industrial Conditions in the United States." All members and their friends, ladies and gentlemen, are invited

Basket-Ball.

The first basket-ball game on the Canal Zone was played Saturday evening, September 21, at Gorgona, between teams representing Gorgona and Cristobal Y. M. C. A.s, the former winning 18 to 15. The line-up was as follows:

Gorgona.		*Cristobal.*
Bath, Christ.............	...r.f................	Culbertson
Wenzel........................	l.f...........	Saltor
Swanson..........	c...........	Fletcher
Kugler	r.g.........................	Luce
Taylor......................	l g.........................	King

Goals from field—Wenzel, Swanson 5, Luce, Fletcher, Saltor. From foul—Culbertson 6, Fletcher 3, Kugler 3, Wenzel, Swanson 2.

Gorgona would like to hear from Y. M. C A.'s at Culebra and Gorgona, with a view to a basket-ball league similar to bowling and baseball.

Misdirected Letters.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, Ancon, C. Z., and may be secured on request of addressee:

Allison, Chas. M.
Anderson, G.
Argraves, Eugene R.
Atkins, S. McD.
Balan, Gregorian
Born, William
Bower, Vernon C.
Brown, William
Burkey, Ally
Cain, J. Harvey
Chase, Carl F.
Chamberlain, Ralph
Cherry, D. F.
Church, Sydney
Cooper, G. K.
Costa, Guilbury
DeVine, Wm. M. (2)
DeWar, David
Fetters, Wm.
Frye, Robt. J.
Garvin, Patrick
Graham, W. H.
Graham, F. L.
Hammond, Robert
Hopkins, George (3)
Jackson, E,
Lewis, Joseph
Locke, Lesley T.
McCulloch, Frank
McKheon, Daniel
Maher, J. C.
Milen, L. D. R.
Oliver, Ralph
Phillips, Clarence T.
Raymond, Dr. E. H. Jr.
Rosacrants, Will
Rooney, John (2)
Shiffert, H. O.
Stuartt, Capt. F. F.
Spangenberg, W. J.
Thompson, Walter
Trembley, Hector
Vinton, Henry L.
Vincent, Francis T.
Zimmerman, Walter (14)

Mr. George H. Ruggles, the assistant engineer in charge of the work of the Municipal Engineering Department at Empire, has returned from his vacation, relieving Mr. William M. Acheson, who has been ordered to Panama to take charge of the work in that city, in turn relieving Mr. W. I. Baucus, on October 1

LETTERS FROM THE LINE.

Vacation Leave.

THE CANAL RECORD:

In your first issue appeared the regulations regarding vacation leaves, but the time for taking leave was not stated. I have been informed that the old regulations permitting a leave after eight months' service had been changed to ten months, and then, upon President Roosevelt's recommendation, it had again been changed back to the original period of eight months. Will you kindly enlighten me regarding this matter through the columns of THE RECORD.

C. E. SMITH.

Corozal, C. Z., Sept. 19.

[Leave may be granted any time after ten months' service.]

Correction.

THE CANAL RECORD:

I wish to state to the readers of THE RECORD that the man who wrote the article in THE RECORD of the 18th instant entitled "A Steam Shovel Man's Views," is mistaken when he says that the steam shovel men have a local lodge at Culebra; also that Mr. Bates is not president of any local lodge on the Isthmus.

PHIL. M. BATES.

Culebra, Sept. 23.

THE CANAL RECORD:

Will you please publish the following to correct a statement in letter from *Steam Shovel and Dredge*. I am not president of Local No. 19 of the International Brotherhood of Steam Shovel Men.

W. H. BATES.

Culebra, Sept. 22.

Interesting Intelligence.

THE CANAL RECORD:

Enclosed please find clipping taken from the *News of the World*, a London paper, which I think may prove of interest to the readers of your highly interesting paper:

> "SUPPLY OF BRIDES GIVEN OUT.—The American Government recently offered free houses to married couples along the Canal route in Panama; the husband to be employed in the construction works. The result was a rush on the part of the employees to get married, and the supply of brides in the Canal Zone was speedily exhausted. An agent has now arrived in New York seeking wives for the Canal employees, and already has met with considerable success."

VINCENT LEAT.

Tabernilla, C. Z., Sept. 21.

Order of Eagles.

THE CANAL RECORD:

All present members of the Fraternal Order of Eagles will please send their name, name and number of Ærie and location, and their present address to the undersigned. The F. O. E. should get together and organize a club on the Isthmus.

JOHN E. BURNS.

Culebra, C. Z., Sept. 22.

Knights of Pythias.

THE CANAL RECORD:

At the last meeting of Empire Lodge No. 2, Knights of Pythias, it was decided to change the regular meeting night from Tuesday night to Saturday night.

The meeting scheduled for Tuesday, October 8, will be held Saturday, October 12, at 8 o'clock. A cordial invitation is extended to all visiting Sir Knights on the Isthmus to attend the meetings of this lodge.

C. E. ANDERSON,
K. of R. & S.

Empire, C. Z., Sept. 25.

MECHANICAL PLANTS.

The Shops at Empire.

The Empire shops were designed for handling heavy repairs to steam shovels, running repairs to locomotives, and heavy repairs to wooden and steel cars. The plant is nearing completion, and will consist of machine shop, boiler shop, blacksmith shop, erecting shed, car shop, planing mill, air compressor and power plant—consisting of air compressors, electric-light plant and boiler plant—and a storehouse 100 by 300 feet, with 3,700 feet of outside platform for storage space.

The machine shop, 80 by 224 feet; boiler shop, 100 by 224 feet, and blacksmith shop, 80 by 224 feet, are parallel to each other, and there is a space of 48 feet between all buildings.

Directly in front of these three shops is located the erecting shed, 80 by 362 feet, running longitudinally with the other shops. This erecting shed is fed by a 60-foot transfer table, which was designed and built on the Isthmus entirely of old French material.

The erecting shed of 14-pit capacity is equipped with a 20-ton electric crane, by which heavy pieces of machinery can be handled from one shop to another.

The machine shop is driven by two 50-horse-power motors, and is equipped with a 10-ton electric crane. The machines of this shop are particularly adapted for the class of work which will be handled at this point.

The boiler shop is driven by two 30-horse-power electric motors, and has numerous jib cranes to handle the heavy work.

There is a track running through and between each of these shops, which allows heavy machinery to be loaded and unloaded at the most advantageous point.

Located between the machine shop and the boiler shop is a lye pit, wherein machinery that is to be overhauled is thoroughly cleansed before work is started on it.

The car-repair shop, 100 by 405 feet, is equipped with traveling cranes running the entire length of the shop, which will facilitate the handling of the cars while undergoing repairs.

The planing mill, 70 by 225 feet, is equipped with an 180-horse-power Buckeye engine, and is located at the side of the car shop. The various machines of this mill are particularly adapted to the repairs of wooden cars.

The power plant of the air-compressor room consists of two 2500 cubic feet free-air-per-minute Rand compressors and two 2500 cubic feet free-air-per-minute Laidlaw-Dunn-Gordon air compressors. The power from these machines is fed into the 10-inch main air line, which runs from Pedro Miguel to Bas Obispo. The pressure on this line varies from 90 to 100 pounds.

The electric-light plant consists of one 200-k.w. generator, direct connected to a Harrisburg engine, and two 100-k.w. generators, each direct connected to a Ball engine.

The boiler plant consists of two batteries, each battery consisting of six 200-horse-power horizontal-return tubular boilers, representing a total of 2,400 horse-power. This plant can be readily increased to 50 per cent overload, if necessary.

There has been ordered a tank of 4000 barrels capacity for the storage of fuel oil, which will be used not only as a fuel for the boiler plant, but will be used at the various points in the shop. The tank will be located on a hill close to the plant, and the oil will be distributed by gravity to the various points of consumption.

The yard room is limited, but the arrangement of tracks is such that it will meet all requirements for some time to come.

Notice.

Effective Monday, September 23, mail will be carried on train No. 6, leaving Panama at 1 p. m. for the following points: Pedro Miguel, Culebra, Empire, Las Cascadas, Bas Obispo, Gorgona, Tabernilla, Bohio, Gatun and Cristobal.

The regular mail messenger will be on this train, mail to be handled in the same manner as it is handled in other passenger trains of the Panama railroad.

(Sgd.) TOM M. COOKE,
Director of Posts.

Improved Order of Red Men.

Chiriqui Tribe No. 1, Culebra, C. Z.—Instituted January 3, 1906. Meets every Saturday evening.

San Blas Tribe No. 2, Cristobal, C. Z.—Instituted March 16, 1906. Meets every Tuesday evening.

Cocles Tribe No. 3, Empire, C. Z.—Instituted March 29, 1906. Meets every Friday evening.

Aztec Tribe No. 4, Pedro Miguel, C. Z.—Instituted June 16, 1906. Meets every Thursday evening.

Cholo Tribe No. 5, Gorgona, C. Z.—Instituted December 10, 1906. Meets every Monday evening.

Incas Tribe No. 6, Gatun, C. Z.—Instituted February 16, 1907. Meets every Thursday evening.

Caribb Tribe No. 7, Las Cascadas, C. Z.—Instituted March 16, 1907. Meets every Wednesday evening.

Alfarreta Council No. 1, D. of P., Culebra, C. Z.—Instituted March 26, 1906. Meets every Thursday evening.

It is proposed to organize a tribe at Ancon-La Boca in the near future.

Commissary Prices.

For week ending Sept. 27:

FRESH MEATS.		*Price.* CTS.
Mutton, entire forequarters,	per lb....	10
Mutton, short-cut chops......	do	19
Mutton, leg......................	do	17
Lamb, for stewing...	do	11
Lamb, entire forequarters...	do	11
Lamb, short-cut chops........	do	27
Lamb, legs........................	do	24
Beef, sirloin, roast..............	do	18
Beef, rib roast, short cut.....	do	17
Beef, rib roast, second cut...	do	15
Beef, chuck roast..........	do	12
Steaks, Porterhouse......	do	23
Steaks, sirloin...................	do	21
Steaks, rump.....................	do	23
Steaks tenderloin...............	do	22
Steaks, round....................	do	12½
Beef, corned......................	do	10, 12, 14
Beef, soup........................	do	7
Beef, stew.........................	do	10
Veal, cutlets......................	do	21
Veal, short-cut chops..........	do	20
Veal, loin.........................	do	12
Veal, entire forequarters.....	do	9
Veal, for stewing.....	do	8
Pork, cuts......	do	20
Livers Beef...........	do	9
Frankfurt sausage.....	do	17
Ham, Sugar Cured Sliced....	do	§25
Ham, ½ (for boiling).....	do	§20
Bacon, English breakfast, sliced	do	§26
Livers, Calf......................	each...	60
Sweet breads, Veal....	per lb. ...	1.20
Sweet breads beef.....	do	25
POULTRY AND GAME.		
Chickens, dressed, (milk fed)	each...$	*1.30
Fowls.............................	do	*1.00
Capons, Philadelphia..........	do	2.40
Ducklings........................	do	1-25
Turkeys...........................	per lb......	26½
Broilers, frys (chicken).	each...	†80
Squabs............................	do	35
Eggs, fresh.......................	per dozen	†30
Oyster, ½ gal. kegs.............	each	70
DAIRY PRODUCTS.		
Butter, prints, prime quality.	per lb....	†35
Cheese, cream.....	each...	22
Cheese, Neufchatel..............	do	6
Cheese, Camembert............	do	28
Cheese, Roquefort........	per lb......	45
Cheese, Young America......	do	22
Milk..............................	per quart	**15*
FRUITS AND VEGETABLES.		
Lemons..............................	per dozen	15
Oranges........	per dozen	·12
Apples................	per lb......	6
Limes.................	per hundred	30
Bananas..................	per dozen	5
Peaches............................	per lb......	*10
Tomatoes........	per lb......	10
Celery..............................	per bunch	*18
Cucumbers................	per lb......	5
New potatoes.....	do	3
Sweet do........................	do	2¼
Cabbage................	do	3
Lettuce.......................... .. .	do	7
Onions.....	do	3
Grapes...........	do	*6
Watermelons.....................	each	†30
Cantaloupes......................	do	*6
Pears......	per lb	10

** Indicates 5 cents allowed for return of bottle.

§ Sold only from Cold Storage and not from Commissaries.

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	*New Price.* CTS.
Cigars, Governors,	each...	10	8
do After Supper,	do	3	2½
do Bouquets......	do	7	6
do Caballeros....	do	10	8
Tobacco, Drummond's Natural Leaf......................	plug	25	20
Ammonia, Parson's Household.....	bottle	8	15
Soda, bi-carb, 2-oz...	pkg	12	2
Asparagus, Jemco, 2½s......................	tin	34	44
Soap, castile...........	lb	11	14
Tanglefoot, fly-paper......................	sheet	2	1½

NEW ARTICLES.

		Price. CTS.
Asparagus, Republic, 2½s......	tin...	42
Baking Powder, Rumford's, 5s	do	$1.02
Coffee, Isthmian American, 2s	do	70
Lard, pure leaf, 1-lb tins........	do	15
do do 2-lb tins........	do	28
Cocoa, Anchor, 1s.................	do	37
do do ½s.....	do	20
Bacon, Swift & Co.'s Clover..	lb	20
Pepper, white, ¼s.................	tin...	9
Tomatoes, Greenwich, 1-gal..	do	36
Vermicelli, Margerrie, 1s	pkg	2
Chocolate, Peters' Milk	do	06
Pickles—White onions, Libby's 5-gallon kegs..............	keg	$5.20
Pickles—Sour gherkins, Libby's 5-gallon kegs...............	do	4.60
Cocoa, Anchor, 5s.................	tin	1.65
Handles for scrub brushes, stock No. 37,469................	each	04
Knives, potato, stock No. 37,471............................ ..	do	05
Apron—Overalls, No. 228 a, "Battleship Brand," stock No. 37,472..........................	do	85
Apron—Overalls, No. 31a, "Battleship Brand," stock No. 37,475.............	do	85
Pants, colored jean, No. 228p, "Battleship Brand," stock No. 37,473...............	pair	80
Pants, colored jean, No. 254, "Battleship Brand," stock No. 37,474........................	pair	85
Coats, colored jean, No. 102c, "Battleship Brand," stock No. 37,476..........................	each	85
Strops, razor, stock No. 37,479..........	each	55
Shoe laces, white, black and tan (mercerized), stock No. 37,481................	pair	06
Half-hose, tan and black, No. b300, stock No. 37,482......	do	25
Handkerchiefs, Aliz, hemmed, a23 and a13, stock No. 37,483..........	each	05

First Canal Zone Odd Fellows Lodge.

Isthmian Canal Lodge No. 1, Independent Order of Odd Fellows, was instituted at Gorgona, September 17, after some delay. The charter was secured upon the application of the following petitioners: Bros. Morris, Cole, Kunce, Henkle, and Bardick. Spec. D. G. S. Sisson instituted the lodge and installed the officers with the assistance of P. G's. Mead, Hiett, and Smith.

Tuesday is the regular meeting night, but a special meeting will be held Saturday, October 5, to institute a class of 25. Brothers from along the line are urged to be present and have a good time. Accommodations will be furnished.

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.

Maj. D. D. Gaillard, U. S. A., Culebra.

Maj. Wm. L. Sibert, U. S. A., Culebra.

Mr. H. H. Rousseau, U. S. N., Culebra.

Mr. J. C. S. Blackburn, Ancon.

Col. W. C. Gorgas, U. S. A., Ancon.

Mr. Jackson Smith, Culebra.

Mr. Joseph Bucklin Bishop,
Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.

Wm. Howard May, Secretary.

M. K. DePutron, chief clerk.

A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.

C. A. McIlvaine, chief clerk.

D. W. Bolich, Division Engineer, Empire.

S. J. Kennedy, chief clerk.

Louis K. Rourke, Assistant Division Engineer, Empire.

Wm. Gerig, Division Engineer, Gatun.

Mrs. C. L. McPherson, chief clerk.

W. G. Comber, Division Engineer, La Boca.

David V. Stratton, chief clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.

R. M. Sands, chief clerk.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.

E. P. Thompson, chief clerk.

Wm. Gerig, Division Engineer, Cristobal.

Mrs. C. L. McPherson, chief clerk.

Sydney B. Williamson, Division Engineer, La Boca.

E. A. LeMay, chief clerk.

W. G. Comber, Division Engineer, La Boca.

David V. Stratton, chief clerk.

Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.

Henry Goldmark, David Moliter, Structural Work Design.

L. D. Cornish, H. T. Tucker, Masonry Design, Culebra.

R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.

D. W. MacCormack, chief clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: H. H. Rousseau, U. S. N., Culebra.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.

E. C. McFarland, chief clerk.

George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.

F. W. Doty, chief clerk.

Earl J. Banta, Mechanical Engineer.

A. L. Robinson, Electrical Engineer.

W. M. Belding, Master Builder (Division of Building Construction), Culebra.

P. O. Wright, jr., Architect, Culebra.

J. H. Barbour, chief clerk.

Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.

Max Dyer, chief clerk, Cristobal.

W. C. Haskins, chief clerk, Ancon.

Wm. Krugel, Stationer and Printer, Ancon.

Division of Map Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.

H. D. Reed, Executive Secretary, Ancon.

J. K. Baxter, chief clerk, Ancon.

Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.

E. Lewis Baker, Deputy Collector, Cristobal.

Herman A. Gudger, Deputy Collector, Ancon,

George R. Shanton, Chief of Police, Ancon.

D. E. McDonald, chief clerk.

C. E. Weidman, Chief, Fire Department, Cristobal.

E. H. Hale, chief clerk.

Geo. L. Campen, Water Commissioner, Ancon.

Inocencio Galindo, legal adviser, Ancon.

Canal Zone Judiciary.

Canal Zone Judiciary: Supreme Court, Dr. F. Mutis Durán, Chief Justice, Ancon.

H. A. Gudger, Associate Justice, Empire.

Lorin C. Collins, Associate Justice, Cristobal.

Walter Emery, clerk of court, Ancon.

Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.

Walter Emery, Circuit Court clerk, Ancon.

Circuit Court, Second circuit: H. A. Gudger, Judge, Empire.

Elbert M. Goolsby, Circuit Court clerk, Empire.

Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.

Nelson R. Johnson, Circuit Court clerk, Cristobal.

Prosecuting Attorney: George M. Shontz, Ancon.

Acting Prosecuting Attorney: Thomas E. Brown, Jr., Ancon.

Translators: F. H. Sheibley and Charles M. Brown.

M. C. Kerdell, Senior District Judge, Culebra.

Thomas E. Brown, jr., District Judge, Cristobal.

J. M. Fernandez, District Judge, La Boca.

R. B. Myers, District Judge, Empire.

R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.

Maj C. C. McCulloch, jr., U. S. A, Executive Officer, Ancon.

Harry C. Bovay, chief clerk.

H. R. Carter, Director of Hospitals, Ancon.

Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.

Maj. John. L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.

J. F. Leys, U S. N., Superintendent, Colon Hospital, Colon.

Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.

Dr. John H. Purnell, Health Officer, Panama.

Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.

R. E. Wood, Assistant Manager, Culebra.

S. C. Klauber, chief clerk.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.

W. M. Wood, chief clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.

W. D. Mabry, chief clerk.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Altai	*H.-A.*	*Saturday*	*Sept.*	*28*
Colon	*P.RR.*	*Friday*	*Oct.*	*4*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Oct.*	*5*
Trent	*R.M.*	*Saturday*	*Oct.*	*5*
Finance	*P.RR.*	*Wednesday*	*Oct.*	*9*
Venetia	*H.-A.*	*Saturday*	*Oct.*	*12*
Panama	*P.RR.*	*Tuesday*	*Oct.*	*15*
Prinz Sigismund	*H.-A*	*Saturday*	*Oct.*	*19*
La Plata	*R.M.*	*Saturday*	*Oct.*	*19*
Dunottar Castle	*P.RR*	*Monday*	*Oct.*	*21*
Advance	*P.RR.*	*Friday.*	*Oct.*	*25*
Altai	*H.-A.*	*Saturday*	*Oct.*	*26*
Colon	*P.RR.*	*Thursday*	*Oct.*	*31*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*2*
Tagus	*R.M.*	*Saturday*	*Nov.*	*2*
Advance	*P.RR.*	*Wednesday.*	*Nov.*	*6*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*9*
Panama	*P.RR.*	*Monday*	*Nov.*	*11*
Prinz Sigismund.	*H.-A.*	*Saturday*	*Nov.*	*16*
Orinoco	*R.M.*	*Saturday.*	*Nov.*	*16*
Dunottar Castle	*P.RR.*	*Monday*	*Nov.*	*18*
Finance	*P.RR.*	*Friday*	*Nov.*	*22*
Altai	*H.-A.*	*Saturday*	*Nov.*	*23*
Colon	*P.RR.*	*Wednesday.*	*Nov.*	*27*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*30*
Atrato	*R.M.*	*Saturday*	*Nov.*	*20*
Advance	*P.RR.*	*Monday*	*Dec.*	*2*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*7*
Panama	*P.RR.*	*Monday.*	*Dec.*	*9*
Dunottar Castle	*P.RR.*	*Saturday*	*Dec.*	*14*
Prinz Sigismund	*H.-A.*	*Saturday*	*Dec.*	*14*
Trent	*R.M.*	*Saturday*	*Dec.*	*14*
Finance	*P.RR.*	*Thursday*	*Dec.*	*19*
Altai	*H.-A.*	*Saturday*	*Dec.*	*21*
Colon	*P.RR.*	*Tuesday.*	*Dec.*	*24*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec.*	*28*
La Plata	*R.M.*	*Saturday*	*Dec.*	*28*
Advance	*P.RR.*	*Monday*	*Dec.*	*30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Dunottar Castle	*P.RR.*	*Sunday*	*Oct.*	*6*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Oct.*	*8*
La Plata	*R.M.*	*Wednesday.*	*Oct.*	*9*
Altai	*H.-A.*	*Saturday*	*Oct.*	*12*
Colon	*P.RR.*	*Thursday*	*Oct.*	*17*
Advance	*P.RR.*	*Tuesday*	*Oct.*	*22*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Oct.*	*22*
Tagus	*R.M.*	*Wednesday.*	*Oct.*	*23*
Venetia	*H.-A.*	*Saturday*	*Oct.*	*26*
Panama	*P.RR.*	*Monday*	*Oct.*	*28*
Dunottar Castle	*P.RR.*	*Saturday*	*Nov.*	*2*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Nov.*	*5*
Orinoco	*R.M.*	*Wednesday.*	*Nov.*	*6*
Finance	*P.RR.*	*Thursday*	*Nov.*	*7*
Altai	*H.-A.*	*Saturday*	*Nov.*	*9*
Colon	*P.RR.*	*Wednesday.*	*Nov.*	*13*
Advance	*P.RR.*	*Monday*	*Nov.*	*18*
Prinz Eitel Freidrich	*H.-A.*	*Tuesday*	*Nov.*	*19*
Atrato	*R.M.*	*Wednesday.*	*Nov.*	*20*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*23*
Panama	*P.RR.*	*Sunday*	*Nov.*	*24*
Dunottar Castle	*P.RR.*	*Friday*	*Nov.*	*29*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*3*
Finance	*P RR.*	*Wednesday*	*Dec.*	*4*
Trent	*R.M.*	*Wednesday.*	*Dec.*	*4*
Altai	*H.-A.*	*Saturday*	*Dec.*	*7*
Colon	*P.RR.*	*Tuesday.*	*Dec.*	*10*
Advance	*P.RR*	*Sunday*	*Dec.*	*15*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Dec.*	*17*
La Plata	*R.M.*	*Wednesday.*	*Dec.*	*18*
Panama	*P.RR.*	*Saturday*	*Dec.*	*21*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*21*
Dunottar Castle	*P.RR.*	*Thursday*	*Dec.*	*26*
Finance	*PRR.*	*Tuesday.*	*Dec.*	*31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*31*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Atrato	*R.M.*	*Tuesday*	*Oct.*	*1*
Trent	*R.M.*	*Tuesday*	*Oct.*	*15*
La Plata	*R.M.*	*Tuesday*	*Oct.*	*29*
Tagus	*R.M.*	*Tuesday*	*Nov.*	*12*
Orinoco	*R.M.*	*Tuesday*	*Nov.*	*26*
Atrato	*R.M.*	*Tuesday*	*Dec.*	*10*
Trent	*R.M.*	*Tuesday*	*Dec.*	*24*

All Royal Mail steamers mentioned above and the *Prinz Eitel Friedrich* and *Prinz Sigismund* call at Kingston enroute to New York.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 23d of each month.

The work of rebuilding the general store warehouse at Mount Hope, which was partly destoyed by fire April 1, is rapidly nearing completion.

The Canal Record

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The Canal Record

Published weekly under the authority and supervision of the
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Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

The Cucaracha Slide at its Old Tricks.

Owing to the heavy rainfalls of the past few weeks, the Cucaracha slide, which remains quiet during the dry season, has again begun to move. This slide is on the east side of the Canal about half a mile south of Gold Hill, and first began to move in 1884 or 1885, during the time of the old French company. It gave this company a good deal of trouble during the entire time that operations were in progress in this vicinity; but its movement ceased soon after the failure of the old company in 1889. It remained practically quiescent during the entire period of control by the new French company, the reason being that no operations in the Canal in this vicinity were carried on by that company. With the resumption of work by the United States in 1905, the slide again began to move, and has continued to give more or less trouble during every wet season since. The total amount of material in movement is estimated at about 500,000 cubic yards. The plan pursued heretofore has been to attack the slide during the dry season with steam shovels, cutting as wide a berm as possible in the material outside of the limits of the prism, so that, during the wet season, the moving material would be caught on the berms and would not get into the Canal. The movement during the present season has been more rapid than usual and the berms have been filled up, permitting a part of the material to get into the Canal prism. Shovel No. 223 was caught by the moving mass of material on October 4, and was extricated unimpaired on October 6. Shovel No. 109 was also caught, but was pulled out by the wrecking train on October 5.

During the next dry season as many shovels as possible will be put to work outside of the Canal prism, for the purpose of removing all the material now in motion, which would be liable to get into the Canal during succeeding wet seasons. The total amount of material involved in this slide (about 500,000 cubic yards), was included in the estimate of April 1, 1907, which gave the total amount of material yet to be excavated in order to complete the Canal under the existing project.

SEPTEMBER EXCAVATION.

Over a Million and a Half Cubic Yards Removed.

The grand total of all excavation during September was 1,517,412 cubic yards. For the first time since United States control the million and a half limit was passed. Of the 1,517,412 cubic yards, 1,481,307 were taken from the Canal prism. The August total from the prism was 1,274,404, cubic yards, or 206,903 cubic yards less than the September total. There were three less working days in September than there were in August, and the rainfall at nearly all points along the Line was heavier than last year. At Empire, Culebra, Rio Grande and La Boca, the rainfall was very much heavier, ranging from a half greater to more than twice as great. The excavation in detail is appended:

Department of Excavation and Dredging.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Culebra Division...	753,288	180	753,468
Mindi....................	28,783	....	28,837
Chagres Division...	21,546	2,200	23,746
Total..................	803,671	2,380	806,051
Dredges—			
Colon Dredging Division..............	403,842	17,000	420,842
La Boca Dredging Division..............	144,625	9,350	153,975
Total...............	548,467	26,350	574,817
Grand total.....	1,352,138	28,730	1,380,868

Department of Lock and Dam Construction.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Gatun, locks..........	87,423	....	87,423
Gatun, spillway....	36,315	....	36,315
La Boca, locks......	5,431	....	5,431
Total...............	129,169	....	129,169
Dredge and hand			
La Boca, diversion.	....	7,375	7,375
Grand total.....	129,169	7,375	136,544

Entire Canal.

How excavated.	In Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
By steam shovels..	932,840	2,380	935,220
By dredges......	548,467	33,725	582 192
Total..............	1,481,307	36,105	1,517,412

September Rainfall for Three Years.

Station	1905.	1906.	1907
Cristobal.......	6.80	12.48	11.72
Gatun........................	10 32	15.02	7.94
Bohio.........................	11.22	13.43	13.63
Bas Obispo.................	....	....	14.71
Gamboa......	6.65	9.42	14.01
Alhajuela	7.70	10.75	11.88
Empire.............	6.65	6.61	10.86
Culebra......................	....	6.22	11.38
Rio Grande........	13.85	5.14	11 99
La Boca.................. ...	6.40	3.86	9.99
Ancon.........................	7.46	4.83	11.14

The average rainfall in the Zone, as shown by the above table, excluding Alhajuela, which is outside the Zone, was 11.65 inches for the month.

September Steam Shovel Records.

The steam shovels which made the highest record for the month of September, 24 working days, were as follows:

95-ton Class—No. 207, 11,284 cubic yards of earth, 16,927 cubic yards of rock; total, 28,211 cubic yards. No. 202, 13,485 cubic yards of earth, 13,486 cubic yards of rock; total, 26,971 cubic yards.

70-ton Class—No. 122, 2,912 cubic yards of earth, 21,370 cubic yards of rock; total, 24,282 cubic yards. No. 110, no cubic yards of earth, 17,497 cubic yards of rock; total, 17,497 cubic yards.

These figures are below those of July, with 26 working days, and of August with 27 working days, which were published in THE CANAL RECORD of September 11.

To Increase Capacity of Rio Grande Reservoir.

In order to increase the storage capacity of the Rio Grande reservoir, the Panama railroad is proceeding to raise three feet Bridge No. 56, at the spillway dam, which will enable the dam and spillway to be raised accordingly, and will increase the storage capacity of the reservoir nearly 150,000,000 gallons, as compared with the amount stored at the beginning of the last dry season.

The Sea-Going Suction Dredge "Ancon."

The dredge *Ancon* is a sea-going suction dredge, constructed by the Maryland Steel Company of Sparrows Point, Md. Its length is 288 feet, molded beam 47½ feet, molded depth 25 feet, and it is propelled by twin screws. There are two 20-inch centrifugal pumps which discharge the dredged material into two bins of a normal capacity of about 2,000 cubic yards. The dredge is capable of digging to a depth of 40 feet, and its cost, delivered at Sparrows Point, Md., was $362,425 without equipment. She arrived at Cristobal in August, making the run from Sparrows Point, under her own steam, in about nine days. She has been working in the Canal entrance in Limon bay ever since her arrival. She operates in a stretch of the entrance channel about a mile and a quarter in length and 500 feet in width. Starting at the inner end and moving slowly seaward with her pumps in operation and her two drags sucking up mud from the bottom, by the time she reaches deep water her bins have received all the material which will readily settle. The suction pipes are then raised and she steams out to sea off Toro Point, when the bins are opened and the dredged

NOTES OF PROGRESS.

(Continued.)

material dumped. She makes in all, about 16 round trips in the 24 hours, and at each trip removes about 750 cubic yards of mud. Every Saturday it is necessary to coal the vessel, and on that day she averages only from one to six round trips, the rest of the time being consumed in coaling.

Another sea-going dredge, the *Culebra*, precisely similar to the *Ancon*, has just been tested at Sparrows Point, Md., and will sail for Panama via Cape Horn, under her own steam, early in October. If all goes well, it is expected that she will arrive at Panama about January 1, 1908.

Satisfactory Work by the Rebuilt Dredge.

The rehabilitated French dredge No. 14, described in THE CANAL RECORD of September 25, was put in operation in the new channel off Naos island in the Pacific on October 2. Her performance is even more satisfactory than was anticipated. The engines and transmission machinery run smoothly, the control is simple and effective, and the consumption of coal economical for the power developed.

Owing to the long haul, the clapets, or mud barges working with the dredge, are unable to dispose of all the material that could be removed by this machine and therefore no figures can be given as to maximum output for twenty-four hours from actual test. Thirty-five minutes are consumed in loading a single clapet whose hopper has a capacity of 250 cubic yards. Arrangements are being made to add new barges to the fleet. One French barge has been rebuilt and will be placed in commission in the near future, and the work of overhauling another has begun. When this shall have been done the output of the dredge will be considerably increased.

Very little time is lost in placing or moving the dredge owing to an easily controlled system of winches. The movement of dredging equipment on the Pacific side is quite a difficult problem, for, in addition to allowing for two 20-foot tides each day it is necessary to govern the forward and lateral progress within a very few feet, in order that the "business end" of the bucket ladder may have proper contact with the mud bank which is being cut away.

During September the old Scotch dredge A-2, rebuilt by the Panama Railroad Company five years ago, excavated in 23½ working days, 122,580 cubic yards, place measurement, in the new channel off Naos island.

Gatun Buildings.

The Building Department reports the completion of almost all the buildings that have been authorized for Gatun. Building operations at that place began the latter part of August, 1906, and between that date and June of this year 97 buildings have been erected. A lodge hall and a church have yet to be completed but work on them must be delayed until it is possible to remove the structures now on the site where they are to be placed.

The building work at Gatun has from the first been carried on under special difficulties. Before any work could be done it was necessary to construct a 16-foot plank road for a mile or more from the railroad tracks to the building site. Transporting all the building material necessary for the construction of so many houses over this road and up a steep hill added to the work. There have been erected at Gatun within a year almost the same number of Commission buildings as there are at Culebra.

Increasing Zone Revenues.

That the business of the Government in all its branches has kept pace with the progress of the Canal is shown by the report of the Collector of Revenues just submitted to the Head of Department of Civil Administration at the close of business September 30.

A comparison of the first quarter of the fiscal year of 1907–8 with the last quarter of the fiscal year of 1906–7, shows as follows:

Postal sales for the three months ending June 30, amounted to $15,675.[illegible], while for the period ending September 30, they amounted to $16,139.72.

Money orders were issued during the three months ending June 30 to the amount of $857,532.18, while for the corresponding period of three months ending September 30, they amounted to $992,066.79.

There were issued during the quarter ending June 30, 247 land leases, and 264 for the period ending September 30. The amount of land rents collected during the quarter ending June 30, equals $2,163.12, and during the quarter ending September 30, $2,901.76.

From all other sources during the quarter ending June 30, there was collected $28,817.32, and for the quarter ending September 30, $55,783.[illegible]9.

The total amount of moneys handled by the Department of Revenues for the quarter ended June 30, was $904,188.51, while for the quarter ended September 30, the total amount was $1,066,851.56, an increase of $162,663.05.

The number of vessels entering the ports of Ancon and Cristobal during the quarter ending June 30, was 37 vessels with a total tonnage of 63,844 tons, and for the period ending September 30, 38 vessels with a total tonnage of 72,368 tons.

Additional Family Quarters.

On October 1, the number of applications for family quarters in excess of present accommodations, completed, under construction or authorized, was 399, as follows:

East La Boca	26
Ancon Hospital	5
Ancon	15
Corozal	2
Pedro Miguel	16
Paraiso	15
Culebra	23
Empire	24
Las Cascadas	21
Gorgona	53
Tabernilla	5
Bas Obispo	3
San Pablo	1
Gatun	[illegible]
Cristobal	[illegible]
Total	[illegible]

All these applications have been filed since the beginning of the present fiscal year and the construction of the desired quarters, including furniture, light, water, and sewer system extensions, sidewalks, etc. would entail an expenditure of fully $900,000. In view of the additional applications which are constantly being received, it is not believed advisable to incur this large expense without ascertaining fully the attitude of Congress, as practically all this expense would have to be covered by a deficiency appropriation—this year's appropriations being insufficient for any of the work.

No action, therefore, will be taken toward approving or disapproving the construction of these additional quarters until after the visit to the Isthmus in November of the Congressional Committee on Appropriations.

OFFICIAL CIRCULAR.

CULEBRA, Oct. 2, 1907.

To the Heads of Departments and Divisions:

In assigning work to an employee, attention is invited to the necessity of complying with the requirements of the provisional contract under which he was employed. His appointment states his trade or rating and in giving him employment the Commission is practically bound to give him work in accordance therewith.

When an employee reports, and, due to changes in conditions since requisition was received by the labor agent, finds there is no work for him in the trade or rating in which he was appointed the following procedure will be necessary:

1. Work in another trade or rating which he is competent to fill and where he is needed may be given him. In this case his superintendent shall forward a recommendation to change the rating of the employee to agree with the work to which he has been assigned.

2. It should be clearly understood by all that the Commission can not compel a man to perform work permanently not covered by the duties of his trade.

3. In case there is no work for a man in the trade in which he was engaged, and he is either not fitted or not willing to perform any other grade of work, it will be necessary to discharge him for "lack of work."

It is essential, therefore, to secure at all times agreement between outstanding requisitions and requirements. Requisitions should be revised each month, or oftener, if necessary.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

New Rates at Hotel Tivoli.

Effective October 1, the following rates will be in force at the Hotel Tivoli:

Grade No. 1—Room, one person in room, $1.50; two persons in room, $2.25.

Grade No. 2—Room, one person in room, $2.50; two persons in room, $3.50.

Grade No. 3—Room, one person in room, $3.50; two persons in room, $5.

Guests in grade No. 1, No. 2, and No. 3 rooms have the use of public bath rooms located at convenient points on each floor.

Grade No. 3 B—Room with bath, one person in room, $4.50; two persons in room, $6.50.

Meals: Breakfast, 50 cents; luncheon, 75 cents; dinner, $1.

Employees of the Isthmian Canal Commission will be granted a reduction on these rates as follows:

Rooms in grade No. 1, 33⅓ per cent; in grades No. 2, No. 3, and No. 3 B, 40 per cent.

Meals: Breakfast, 50 cents; luncheon, 50 cents; dinner, 75 cents.

All payments by an employee must be from hotel coupon books.

PNEUMONIA ON THE ZONE.

Result of a Special Investigation by the Sanitary Department.

In April, 1907, pneumonia was widely prevalent on the Canal Zone, and in order to ascertain the causes of it as far as possible, the Chief Sanitary Officer appointed a Board, with Dr. H. R. Carter at the head of it, to investigate the matter. This Board submitted its report a few weeks ago, the substance of which is given in the following extracts:

At the time this Board was called pneumonia was widely prevalent over the Canal Zone, existing at practically every district therein, but varying very much as to the degree of its prevalence. For instance, in the preceding month Tabernilla, with a population of not less than 700 colored, gave 31 cases. La Boca, with a population of over 800 gave one case. It was practically confined to the colored population.

THE METHOD OF INVESTIGATION.

It was determined:

(*a*) To inspect the places where pneumonia was most prevalent, Tabernilla and Gorgona Encampment, making a comparison between the houses where cases, one or more than one had occurred, and the houses as close thereto as possible where no cases had occurred, to determine if there was any difference in the conditions of the houses themselves which could account for pneumonia developing in the one and not doing so in the other.

(*b*) To inspect the localities, comparing the houses and their environments in stations where pneumonia was especially prevalent, with the conditions at stations where it was least prevalent to see if the conditions under which they were occupied, or in their environment could explain the differences of the prevalence of pneumonia in the different districts.

(*c*) To make an examination of the clinical records of pneumonia cases.

(*d*) To examine the records of pathological finding of pneumonia cases of the Ancon hospital.

The first two inquiries (*a*) and (*b*), were to be conducted as far as possible by the full Board, or by as many members as possible, acting together; the third (*c*) by the Director of Hospitals; the fourth (*d*) by the Director of Labratory.

(*a*) INSPECTION OF HOUSES.

The inspection of the houses at Gorgona Encampment and Tabernilla, where the pneumonia was most prevalent, revealed no differences in regard to crowding, ventilation, cleanliness or amount of bed covering in the houses that had furnished no cases, for those in which cases, one or more than one had developed.

The result of this inquiry was absolutely negative.

(*c*) INSPECTION OF LOCALITIES.

A comparison of camps like those above named with those at La Boca and Gatun, both in low ground like Tabernilla and Pedro Miguel, Paraiso and Carthagenta, all in high ground like the Encampment, revealed no differences in the above points, excepting a larger amount of bed covering. The camps at La Boca were the most crowded, furnished practically no cases of pneumonia. The camps at Paraiso and Carthagenta were the least crowded furnished also an extremely small number of cases. If anything, the camps at Tabernilla were in the best condition in regard cleanliness and general police, of any examined. The men in these camps, La Boca, Paraiso, Pedro Miguel and Carthagenta stated that they were "old men," that is, they had been on the isthmus for a considerable length of time. About forty or fifty were asked this question and all had been on the Isthmus a considerable time, not less than six or eight months; most of them claiming a year or more. The result of this examination was also negative.

From the data collected, the accompanying analyses are submitted and the following conclusions drawn:

(1) Time of year. Exhibit A.

It will be seen that the pneumonia increased from the beginning of the dry season being greater toward its end; 124 cases in April, the the dryest month. Dropping down some in May and June, which are wetter months, but raising again in July, which was about as wet as June. It evidently was decidedly worse in the last dry season than in the wet season so far, July 31. This is opposed to its general course last year. There was an increase of about 10 or 15 per cent in the number of colored employees from January 1 to June 1. Very few colored men arrived (and a number left) in October and November of 1906. The heavy importation of colored contract laborers began about January 14 and ceased May 16, 1907. We do not find, then, any relation to season or time of year.

(2) Locality. Exhibit B.

This table shows a great difference in the prevalence of pneumonia at different localities, but gives no light as to the cause of such differences.

ALTITUDE.

One hundred and fifty cases per thousand at Tabernilla with 30 at Cristobal and 24 at La Boca, where the ground was equally low and approximately the same climatic conditions prevailing, except such as might be due to the presence of salt air. Gatun but little higher than Tabernilla gives 20 cases per thousand, and is in the same fresh water district. The Gorgona Encampment, an elevated place, gives a high percentage, while Las Cascadas, at near the same altitude and as far as one can tell, the same climatic conditions, gives the lowest on the list.

RELATION TO MALARIA.

Gatun, Pedro Miguel and Tabernilla during this time were giving the largest percentage of malaria. They gave 20, 20 and 150 per thousand cases of pneumonia respectively. There seems to be no relation then to altitude or prevalence of malaria.

HOUSE INSPECTION.

Of 205 houses identified as those in which pneumonia had occurred, in only 25 did more than a single case occur. There is no evidence then that it is spread by house infection.

DEFICIENT VENTILATION AND EXPOSURE TO DRAFT.

It was attempted to get data on this by finding out if the patient had slept in the top bunk or not. This inquiry was not begun at the beginning and is, therefore, less extensive than is desirable. It is believed, however, to be fairly accurate because, while very generally the patient did not know the number of his house, yet, he seemed always to know whether he slept in the top bunk or not, and this seems reasonable.

The barracks are built with a louvre about three feet high, just under the eaves and just slightly above the top bunks, which run along the sides parallel and close to these louvres. It is obvious then that the men occupying the top bunks have (1) better ventilation and (2) are more exposed to draft than those occupying the other bunks. Obviously also there being three tiers of bunks one-third of the total number are top bunks. In point of fact less than one-third of the number in barracks sleep in the top bunks, because if the barrack is not entirely full (which, however, is not usually the case), the top bunk is empty as it requires more climbing to get to it than the other. If, then, lack of ventilation has been a predisposing cause, there should be decidedly less than one-third of the total number of cases of pneumonia in the top bunk. If, however, exposure to draft has been such a cause, there should be over one-third of the top bunk men in the pneumonia list. In point of fact the ratio 52 to 162 is slightly under one-third, about the ratio of the men occupying the top bunk to the whole number. This subject then, does not show that deficient ventilation due to sleeping in the lower bunks, or exposure to draft due to sleeping in the top bunks, in anywise effected the prevalence of pneumonia.

EFFECTS OF ISTHMIAN CLIMATE FAVORABLE.

The number of "new men" (men not over three months on the Isthmus) and "old men" (men over three months on the Isthmus) among the colored employees of the Commission at the commencement of each month; also the number of cases of pneumonia in each of the above classes during each month with the ratio of the number of "new men" to the number of "old men" on the pay roll and the number of cases among the "new" to the number of cases to the "old men" and the ratio of these ratios. Obviously if both classes of men in the above are equally liable to pneumonia, the ratio of the ratios should be be 1; if the "old men" are more liable to pneumonia the ratio should be less than 1; if on the other hand, the "new men" are more liable, the ratio should be greater than 1.

An examination of this exhibit shows that in every month the ratio is greater than 1, decidedly so. The conclusion to be drawn from the exhibit are that residence on the Isthmus for over three months does give a decided protection against pneumonia. This is the only positive finding given by this investigation, *i. e.*, examination of the clinical records.

To sum up your Board can not find that the prevalence of pneumonia is effected by;

(1) The time of year.

(2) The altitude. Tabernilla about 12 feet above sea level and absolutely flat, and Gorgona Encampment, about 105 feet high and well drained, gave the highest proportion of cases, while Cristobal, La Boca and Corozal, all comparable with the first, and Las Cascadas, Pedro Miguel and Paraiso, comparable with the second gave low percentages.

(3) The prevalence of malaria.

(4) House inspection—by previous case.

(5) Deficient ventilation and overcrowding, as they exist in Commission quarters.

(6) Exposure to draft—as they exist in Commission quarters.

That it is decidedly more prevalent in men newly arrived—under three months—than in older residents.

That it is mainly due to the presence on the Isthmus of an infectious catarrh, which naturally is especially prevalent among the new arrivals, and which predisposes them to pneumonia.

That the process is generally the production of an inflammation of the accessory sinuses—due to the catarrh—the mucous membrane of which is thus fitted for the reception and growth of the pneumococcus, and this serves as the atrium of entrance for that organism.

Since we can do nothing to prevent the employe contracting this catarrh we must do what is possible to render its course, and hence its effects milder:

(1) That the role of the infectious catarrh prevalent on the Isthmus in the cauzation of pneumonia is clearly recognized, and that therefore it is treated by district physicians with that knowledge before them and considered as a graver disease than it has hitherto been.

(2) That as far as possible the newly arrived colored laborers be grouped at places where drying houses are located, so that clothes and bedding may be rapidly dried.

Indeed the general introduction of drying houses would, we believe, render the catarrhal symptoms of this infection less severe, and therefore less likely to lead to pneumonia.

(3) That a blanket and a piece of matting or canvas, or two blankets be issued to the colored man on his arrival, unless he has sufficient bed covering, and charged to his account.

Two coverings are advised because it is advisable to put some fabric between the cloth of the bunk and the man. The piece of matting is better (warmer) than the canvas, and has been used to cover canvas cots with great advantage by the Hospital Division. Naturally either is cheaper, and less good, than a second blanket.

No loss will be caused to the laborer by making him take a blanket. In general he buys one about the third or fourth month, paying more for it than he would for one from the Commissary, and which he would have at the most critical time, for him, on the Isthmus.

A few bunks have bottoms of metal strips, and no cloth. These especially ought to be covered by some non-conducting fabric.

[Sgd] H. R. CARTER,
Chairman of Board.

Isthmus Pay Roll for August.

Engineering and Construction	$1,193,609.14
Sanitation	113,314.07
Labor, Quarters and Subsistence	62,636.84
Law and Government	38,850.61
Administration	26,035.62
Total	$1,434,446.28

During the fiscal year ending June 30, 1907, the Panama Railroad Steamship Line carried from Colon to New York freight amounting to 12,568 tons. This tonnage included 1,199 tons of bananas, 9,369 tons of scrap iron, and 2,000 tons of general cargo.

The set of rules recently issued for the guidance of locomotive engineers contains the following: "Engineers will be held responsible for delays caused by failure to perform their or their fireman's work, or failure to report intelligently work to be done at the shop."

MACHINE EFFICIENCY.

Much Labor Saved by It in the Culebra Division.

By D. W. Bolich, Division Engineer.

On the basis of the work accomplished during the final month of the last dry season, the following notes show the number of men that would be required to do the construction work in the Culebra Division without the use of machines.

AS TO DRILLING, BLASTING AND LOADING MATERIAL.

Steam Shovels—Sixty are of the 70-ton and 95-ton type, the 70-ton having 2½ and 3½-cubic yard buckets and the 95-ton 5 cubic yards. We have had shovels that loaded as much as 2,175 cubic yards of mixed rock and dirt (about half and half) in one day of eight hours. Of the 44 shovels we averaged daily at work during the month of March, each averaged 18,600 cubic yards for the month, this representing for a day for each shovel 744 cubic yards. Say a good man would load 6 cubic yards in eight hours, this would equal the work done by 124 men and the work done by 44 shovels, in loading only, would represent the work of 5,456 laborers, as against 298 laborers used as pit men in moving up the shovel and clearing track and firemen, the two white men on each shovel (engineer and cranemen) about equaling the number of white foremen necessary to handle 5,457 laborers.

Blasting—Another point that should be remembered in using the steam shovel as a means of excavating the Cut, is the question of drilling and blasting the ground into such sizes or weight, as that men could load same on cars. A man will generally handle a rock weighing 150 to 200 pounds, or 1½ to 2 cubic feet; a steam shovel will handle rock weighing 21,000 pounds, or 189 cubic feet (taking weight of rock at only 3,000 pounds to the cubic yard, which is very low.)

Comparing with men loading, the fact that we would have to do fully twice, if not three times as much drilling as for shovels must be considered, and also that while we can, for a steam shovel, blast a cubic yard of material with one-third pounds of explosives, for men, we would use a pound of explosives for a cubic yard of material loaded. Therefore, on our drilling and blasting, instead of 700 to 800 men, it would take 2,100 to 2,400 men, and instead of using, as in the month of March, 260,000 pounds of explosives for an output of 815,270 cubic yards, it would have been necessary to use 780,000 pounds, or more, of explosives to do this part of the excavating by hand.

AS TO DUMPING OR GETTING RID OF MATERIAL.

Spreaders and Trackthrowers—On the dump ground as to tracks: These are laid by hand and do not involve the question of machinery. After the track is once laid, it becomes necessary to keep throwing it out to the edge of the dump in order to waste more material. In throwing this track, we use a track throwing machine. This machine will throw 5,400 lineal feet (or 120 feet over a mile) of track, 9 feet in eight hours, and represents the work of 500 to 600 men in same length of time. This machine is handled by three white men and six laborers, and as 5,400 feet of track thrown each day 9 feet on an 18-foot height of dump would take care of the daily output at this time, this machine would show, therefore, a saving in the number of laborers of from 500 to 600 men throwing by hand. The nine men operating this machine are about equal in number to the foremen that would be required to direct a gang of 500 to 600 men.

In unloading material from cars with plows and unloaders, a material gain is made in less number of laborers needed to take care of the output. The best record that has been made here by a single unloader has been 16 trains in eight hours, or 5,000 cubic yards. This shows that 7 unloaders and plows would take care of our daily output as to month of March, and would mean that 28 white men and 42 laborers and firemen, with the machines, could unload 32,000 cubic yards a day. Estimating that a man would unload 12 cubic yards a day of eight hours by hand (as against 6 cubic yards loading) it would mean that by old methods, or unloading by hand, it would take 2,660 laborers with necessary white foremen, (say 100), as against machines with 28 white men and 43 laborers and firemen, This has actually been accomplished by one machine. But even assuming that 20 machines were used the comparison would show that the machines with 120 laborers would accomplish as much in unloading as 2,660 laborers by hand, the white men on machine being about equal in number to the white foremen handling the laborers.

After material has been plowed off cars, it is then pushed away from the track by spreaders, which throws the material out from the track on which cars have been plowed, from 9 to 12 feet, and cuts down the new material to the bottom of the ties of the track on which the spreader is working.

This machine, in a way, does not save handling all the material by hand as, naturally, with track thrown out to edge of dumps most of the material runs down side or slope of dump, but it does save in the cost by not making it necessary to throw the track to the edge of the dump every cubic yard per foot of the length of the dump and thereby stopping the use of the dump every hour or so; else the material plowed off cars would have to be handled by hand.

This machine really expedites the progress of the work, but to accomplish this by hand would involve, without doubt, the use of 3,000 laborers as against eight machines, 16 white men and 24 laborers and firemen.

AS TO HANDLING OF MATERIAL.

Hauling the material from the shovels, or the starting point of the output, to the disposal, or the dumping of same, brings in the transportation or train service, and the modern engine and car as compared with the engine and car of 25 years ago.

The engines as used by the French companies, and which have been rebuilt by us (*i. e.* the standard type used by them), will haul 10 or 12 of the old French dump cars, which hold (as we estimate in our reports) 4 cubic yards, or would represent a train carrying 48 cubic yards of material.

Our engines haul 20 Western dumpcars of 12 cubic yards each or 240 cubic yards of material per train, or 17 flat cars of 18 cubic yards each, or 306 cubic yards material; or to haul our present output of 32,000 cubic yards daily, it would take 666 French trains, as against 133 trains of Western dumps, or 104 trains of flat cars of our American equipment.

NEW AND OLD METHODS COMPARED.

As a comparison of methods used by the French (which of course, were the methods in vogue twenty-five years ago, on construction work, even in the United States, or you could say hand work only), with the modern machinery and 7,000 men, superintendents, foremen, timekeepers, laborers, etc., all told, on the Culebra Cut, we are getting out and disposing of, as to month of March, 815,270 cubic yards as against 282,528 cubic yards by the French at the height of their operation when they took that amount out of Culebra Cut in one month with 16,000 to 18,000 (record not quite clear) laborers alone, not including their superintendents, foremen, etc., although probably of this number of laborers 50 per cent was the efficient working force, or 9,000 laborers. The results per month would be per laborer 32 cubic yards each, under the French as the output of every *man* connected with the Culebra Cut of 116 cubic yards each per month under the Americans.

It should be considered here that our figures are from actual results and not from what the working plant should do. It is not considered at this time that the steam shovels are working more than 60 per cent of the time they should, on account of all the rolling stock necessary to keep the shovels going to their full capacity not having been received, though ordered.

To get the full output, would not involve any material increase in the number of laborers now working, as it is considered the maximum number of laborers required to get the daily output to the amount necessary to complete the Culebra Cut in five years, has very nearly been obtained.

Dinner to Colonel Gorgas.

The Canal Zone Medical Association gave a dinner to Col. W. C. Gorgas, Chief Sanitary Officer and member of the Isthmian Canal Commission, at Hotel Tivoli, on Thursday evening, October 2, in honor of his fifty-third birthday. Toasts were responded to as follows:

"The Doctors," Hon. J. C. S. Blackburn.

"The Sanitarian," Dr. H. R. Carter.

"The United Services on the Canal Zone," Maj. J L. Phillips.

"The Ladies," Dr. J. F. Leys.

"Sanitation in Earlier Days," Dr. P. Obarrio.

"Lights and Shadows of Isthmian Life," Dr. H. E. Canfield.

Those present were: Col. W. C. Gorgas, Hon. J. C. S. Blackburn, Maj. J. L. Phillips, Drs. Gruver, Mayner, Noble, Obarrio, Andrews, Lyster, Tomaselli, Purnell, Burr, Walsh, Murray, Deeks, Melton, Caldwell, Crabtree, Whitaker, Connor, Smith, Earhart, Hearne, Vaughn, Scannel, Pierce, Ross, Macy, Zeiler, Brayton, Carter, Reeder, McCulloch, jr., Curan, Darby, Hale, Lynn, Leys, Noland, Beverly, Williamson, Shoor, Lane, Taylor, James, Hally, Gibson, Nelson, Orenstein, Williams, Shiffert, Scales, and C. E. Phillips.

RECORD OF EXCAVATION.

MONTHLY TOTALS SINCE AMERICAN OCCUPATION.

BY STEAM SHOVELS.

CULEBRA DIVISION.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1904	1905	1906	1907
January.....		70,650	120,990	566,750
February...		75,200	168,410	639,112
March		132,840	239,178	815,270
April..........		126,749	213,177	879,527
May	27,556	75,935	196,209	690,365
June...........	32,551	76,905	212,623	624,586
July	31,599	78,570	159,789	770,570
August	35,056	49,210	244,823	786.866
September .	25,220	44,085	291,452	753,288
October	19,695	52,940	327,009	
November..	28,800	60,540	221,642	
December...	42,935	70,630	307,689	
Totals...	243,472	914,254	2,702,991	6,526,334

Total, 1904.. 243,472 cubic yards
Total, 1905.. 914,254 cubic yards
Total, 1906...,.....................................2,702,991 cubic yards

Total, 1907 (nine months only).......6,526,334 cubic yards
Grand total to Oct. 1, 1907.........10,387,051 cubic yards

There were also removed from the Chagres Division in September 22,746 cubic yards, of which 21,546 cubic yards were from the Canal prism.

GATUN.

Locks, Dams and Spillways.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1906		1907	
	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside of Prism
January.....			47,539	
February...			70,177	
March			100,151	
April..........			103,459	
May			70,523	
June			71,181	3,832
July			59,537	14,628
August			78,357	26,865
September .			123,738	
October	3,055			
November..	11,517			
December...	12,506			
Totals...	26,628		724,667	45,325

Total to Oct. 1, 1907—796,620 cubic yards.

LA BOCA.

Locks, Dams and Spillways.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1906		1907	
	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside of Canal Prism
January.....				
February...				
March........			538	3,367
April..........				1,756
May...........				762
June...........				4,907
July............			4,725	9,047
August..			6,874	8,991
September .			5,431	
October				
November..				
December...				
Totals...			17,568	28,830

Total to Oct. 1, 1907—46,398 cubic yards.

Grand total by steam shovels to Oct. 1, 1907—11,259,637 cubic yards

BY DREDGES.

COLON.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1905		1906		1907	
	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism
January ...				90,700		111,100
February .				105,500		110,002
March......				126,650		84,145
April				87,200		69,889
May......... } June .... }		60,700		64,875		133,847
June				73,500	17,000	107,118
July..		58,050		69,000	[*]104,322	5,600
August.....		53,183		54,000	204,427	5,127
September		48,837		123,540	403,842	17,000
October....		48,800		111,020		
November		38,000		63,260		
December.		92,250		58,400		
Totals...		399,820		1,027,645	729,591	643,828

Total to Oct. 1, 1907—2,800,884 cubic yards.

[*] On this division in August and September there was also removed from the prism 29,568 yards in the Mindi Hills by steam shovels.

LA BOCA.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1905		1906		1907	
	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism
January...				95,940		91,710
February .				95,940		93,480
March......				116,820		92,319
April				110,700		104,855
May				112,340		122,157
June.........		50,676		62,697	64,352	67,228
July..........		41,533		98,400	108,338	
August.....		54,530		111,930	168,284	
September		114,308		105,780	144,625	9,350
October....		81,836		97,170		
November		71,176		92,988		
December .		71,094		90,528		
Totol...		485,153		1,191,233	485,599	584,099

Total to Oct. 1, 1907—2,746,084 cubic yards.
Grand total by dredges to Oct. 1, 1907—5,546,968 cubic yards.
Grand total by steam shovels and dredges to Oct, 1, 1907—16,806,605 cubic yards.

FRENCH AND AMERICAN RECORDS.

Highest elevation on new center line of Canal before excavation began by the French:	FEET
At Culebra..............	312
At Bas Obispo..	233
Greatest depth of excavation by the French:	
On I.C.C. Canal axis at Culebra..	161
On I.C.C. Canal axis at Bas Obispo.............	148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-feet level Canal:	
At Culebra—at same point as before............	111
At barrier on Contractor's Hill... ....about	140
At Bas Obispo........................	45
Amount excavated under American control:	CUBIC YARDS
In Culebra Division (canal prism) to October 1, 1907	10,387,051
Total excavation at all points under American control to October 1, 1907	16,806,605
Total excavation by the French at all points and including diversion channel.. ....about	70,600,006
Total estimated excavation required April 1, 1907 for an 85-feet level canal:	
In Canal prism................	101,050,000
On lock sites.....................	7,965,000
For regulating work and diversion channel.	2,150,000
Dredging in old Channel, Cristobal to Gatun, to open construction channel; and at Panama, to keep channel open to La Boca...	3,350,000
Total.................................	114,515,000

THE WOMAN'S MOVEMENT.

Further Development and Organization of Women's Clubs in the Canal Zone.

By Miss J. Macklin Beattie.

The work of organization of women's clubs in the Canal Zone under the direction of Miss Helen Varick Boswell has gone forward with gratifying activity and enthusiasm during the past week.

On Wednesday, October 2, a meeting was held in the club room of the Commission hotel at Pedro Miguel, when the resident women turned out in force. Miss Boswell briefly stated the object of her visit to the Isthmus with reference to the benefits that would be derived from organized clubs in the Zone. The meeting was not large and Miss Boswell was able to obtain the individual expression of each lady present. It was the unanimous opinion that such organizations were a crying need among the women here and much gratification was expressed that some one had come to take the initiative steps, which none of the resident women felt able to do although each stated that she was willing to undertake her portion of work in the organization.

Following this preliminary, the organization was formed, the following officers being voted in: Mrs. Roberts, president, Mrs. Schick, general secretary, and Mrs. Walker, treasurer.

It was arranged to hold a social meeting on October 9, when a musical programme will be given, and Miss Boswell will give a short address, in which she will enlarge upon the scope of the Pedro Miguel Woman's Club. Additional officers will be elected, dues decided upon, and other business transacted at this meeting.

Paraiso was the next place visited and the ladies were assembled in the club room upon Miss Boswell's arrival. The same eagerness to become an organization which had been shown earlier in the afternoon manifested itself here. Several suggestions were made by the ladies to Miss Boswell upon matters which they felt would need come within the scope or organization work, to the benefit of their community and become a part of club effort. When the point of organization was reached, Mrs. J. C. Barnett, one of the first women to make her home in the Zone, was unanimously elected president, Mrs. F. R. Cozier, secretary, and Mrs. J. R. Barnes, treasurer.

On Thursday, October 3, the second meeting at Empire was held, when the organization was perfected, as in the other instances. The following ladies were elected as officers: Mrs. F. M. Miracle, president; Mrs. E. P. Beck, vice president; Mrs. J. F. McTyier, secretary, and Mrs. R. Rainwater, treasurer.

The meeting was protracted, many points being taken up for discussion. During her informal talk, Miss Boswell outlined in a measure the work of the club within the scope of its four departments as above. Following the discussion, Miss Boswell, who had acted as chairman, turned the office over to Mrs. Miracle, as president of the newly formed organization and a business meeting in parliamentary order was held, the adoption of the constitution was considered seriatim, each clause being voted upon.

The Empire Woman's Club will hold its meeting on the first and third Thursdays of each month. A committee of delegates was appointed to meet at a general conference to be held at the Hotel Tivoli, on October 12, when the question of affiliation of the Canal Zone Woman's Club with the General Federation of Women's Clubs in the United States will be decided. Each of the new clubs organized is enthusiastic on this point and all are willing and eager for its accomplishment.

The women seem to enjoy and derive much inspiration from Miss Boswell's very informal talks, and are entirely in sympathy with the idea of club comradeship which she advocates, and the emphasis of social spirit as the fundamental principle of club life.

The ladies of Gatun met in the Commission Hotel on Friday, October 4, at 2.30 o'clock, and after hearing from Miss Boswell of the purposes for which the clubs at other points were organized, twenty ladies expressed their desire that Gatun should have a woman's club for social and educational work. Mrs. Chester Harding was unanimously chosen as president of the Gatun Woman's Club, and other officers elected were: Mrs. I. L. Elliott, vice president; Mrs. A. B. Shippy, secretary, and Mrs. O. L Brownell, treasurer. The president appointed Mrs. R. C. Nownes, as press secretary.

Several lines were discussed and the ladies were enthusiastic in the belief that the club would prove both useful to the community and interesting and instructive to the members.

Mrs. Harding asked Miss Boswell to give a further talk on such club efforts as it would be suitable to make in a small community and the ladies were keen in asking questions and giving opinions as to how the club should be conducted. Mrs. Harding called the first business meeting of the club for Tuesday, the 8th instant. All the ladies present were anxious that as soon as possible a Commission club house operated by the Y. M. C. A. similar to those located at other centres may be erected, feeling that there is great need for such a social centre for both the men and women of Gatun.

Although organized only on Friday, September 27, the Cristobal Woman's Club held a meeting on Monday, September 30, for committee organization in order to enable each member to understand more thoroughly the departmental work of the club.

The Culebra Woman's Club has arranged a social meeting for Thursday afternoon, October 10, when a musical programme will be given.

The Gorgona Woman's Club held a meeting on Thursday, September 26, the secretary being absent, all other officers present. The president, Mrs. Morrison, occupied the chair. A vote was taken, subject to ratification at the general meeting, that an entertainment be held on Hollowe'en night, and the following ladies were elected to form a programme committee: Mrs. Wolfe, Mrs. Calvit, Mrs. Van Der Meuch, and Miss Faxon. Those who are to meet at the coming conference at the Tivoli were elected, and regular business dispatched.

A convention of delegates mentioned in this article will be held at the Hotel Tivoli, Ancon, on Saturday, October 12, at 2 p. m. This will be an open meeting at which all women will be welcome, although only delegates will have the right to vote on questions under discussion.

SOCIAL AND PERSONAL.

Major William M. Sibert sailed for the States on the *Panama* on October 1. He will return on the *Colon* which will sail from New York on October 31.

Edward J. Williams, Disbursing Officer, has gone to the States on a three months' leave of absence, the first he has taken during his twenty-two months of service on the Isthmus. During his absence Mr. M. C. Gay will be acting Disbursing Officer.

Lieut.-Col. H. F. Hodges, General Purchasing Officer of the Isthmian Canal Commission, after a visit of twelve days to the Isthmus, returned to the States on the *Dunottar Castle* on October 6.

The *Dunottar Castle*, which arrived at Cristobal on September 30, brought 258 passengers, including Mrs. F. Matis Durán, wife of the Chief Justice of the Supreme Court of the Canal Zone, and the Rev. E. J. Cooper, who has come to Colon to take the place of Archdeacon Hendricks as rector of Christ Church. During the voyage of the *Dunottar Castle*, on Sunday, September 30, a service was held on board, conducted by the Rev. Mr. Cooper, at which a child of Mr. and Mrs. Thomas L. Keeler, of Bas Obispo, was christened Edward Franklin Keeler.

W. I. Baucus, acting resident engineer, Division of Municipal Engineering, who has been with the Commission since July 12, 1904, has, at the request of Governor Magoon, been transferred, temporarily, for duty in Cuba, in charge of construction of sewerage system in several localities there.

Mr. C. H. Guckel, in charge of the electrical work for the Panama Railroad Company, sailed for New York by the S. S. *Panama* on October 1, for a six weeks' vacation. Mr Guckel's family accompanied him.

Concert.

By the I. C. C. Band at Ancon Hospital, C. Z., Sunday, October 13, at 3.30 p. m.:

PROGRAM.

1	March	*Heart of Rome*	Brooks
2	Waltz	*Don't Be Cross*	Zeller
3	Intermezzo	*Iola*	Witmark
4	Baritone solo	*Beyond the Gates of Paradise*	King
		D. E. NORCROSS.	
5	Medley selection.	*Remick's Hits*	Lampe
6	Idyl	*Mill in the Forest*	Eilenberg
7	Song for cornet	*Somewhere*	Harris
		CHAS. E. JENNINGS.	
8	Air et varies	*Austrian Hymn*	Godfrey
9	Overture	*Fest*	Leutner
10	March	*Chateau Gontier*	Fischlin

CHAS. E. JENNINGS,
Musical Director.

The next concert will be given at Cristobal, C. Z., October 20.

Sailing Notes.

The S. S. *Manette* arrived at Colon, October 1, from New York and Fernandina, with five Mann Dirt Spreaders and a cargo of lumber. This lumber is to replace the cargo lost by the *Navanna* which was wrecked last May.

The S. S. *Soukra* will leave New York, October 8, with 20,000 barrels of cement for use on the Isthmus.

One of the principal articles of diet of the West Indian laborer is rice. The consumption of this commodity exceeds 100 tons per month.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

CULEBRA.

The concert given by the I. C. C. band, under the direction of Mr. Charles E. Jennings, Sunday, Sept. 29, was enjoyed by a large crowd.

The concert was followed by an address given by Mr. R. W. Fenn, of Panama. His subject was: "Oil as Applied on the Isthmus."

The chess club of the Culebra Y. M. C. A. went to Gorgona Tuesday evening, Sept. 17, and defeated the Gorgona chess club in every game. A return game was played at Culebra Saturday evening, Sept. 28, when Culebra was again victorious, taking six games out of ten. The teams were:

SEPT. 17.

Culebra.	*Gorgona.*
Wm. Dubois	J. A. Clements
M. Meltzer	D. E. Hayes
S. Seljan	S. Ashton
S. G. Forbes	G. Kramer

SEPT. 28.

Culebra.	*Gorgona.*
M. Meltzer	J. A. Clements
Wm. Dubois	D. E. Hayes
J. F. Warner	W. Kemp
J. W. Chambers	F. Ashton
S. Seljan.	A. C. Macy

Last Friday night Mr. Charles T. Manning, of Gorgona lectured on "Thirteen Years of Personal Experience in Central America."

Next Friday evening, Oct. 11, Dr. D. T. Darling of the Ancon hospital will deliver a lecture at the club house on "Infectious Diseases and Their Transmission." Both ladies and gentlemen are cordially invited.

The library of 600 volumes has been installed, and on the opening night 18 books were taken out. During the first week there was a withdrawal of 85 books. A deposit of $1.50 is required before taking out a book. On that deposit members may exchange books free of charge and keep them for one week, subject to renewal.

EMPIRE.

New members are continually being received. Empire has passed the 450 mark. This goes to show that the men of Empire appreciate the club house, and are glad to become members of the Y. M. C. A. that they may enjoy the privileges offered. The latest feature is the library of 600 volumes, furnished by the Commission. September 30 the fiction section was opened for circulation, and during the first week 75 books were drawn. Mr. Herbert Pearson, the librarian, is on hand every evening for the purpose of serving the members in every possible way.

On Tuesday afternoon Oct. 1, the ladies of Empire tendered a reception at the club house in honor of Mrs. J. Floyd McTyier, who has recently come to the Zone.

Mr. Charles T. Manning, of Gorgona, will deliver a lecture Friday evening, Oct. 11, on "Reminiscences of Thirteen Years in Central America." The white public invited.

Members with bowling scores of 200 and over are:

L. A. Durand—201-217-236-255
D. H. McCullough—201-205-209-223
Perry Brown—200-202-203-204-238
Harold Williams—200-206-208-234
T. M. Drake—201-237
G. M. Elmgren—216
H. J. Floyd—207
W. D. Williams—213
R. P. Potter—210
H. S. Steele—200
J. V. McGimsey—200-236
R. S. Windsor—214

GORGONA.

October schedule of Travel Talks:

Thursday, Oct. 10, 8.30 p. m.—Game room; Mr. G. Chauncey Ferris; subject, "India and Its People;" eleven years a resident of India.

Thursday, Oct. 17, 8.30 p. m.—Hall; Rev. Wm. Pearn; subject, "Experiences in the Jamaica Earthquake;" illustrated by stereopticon.

Thursday, Oct. 24, 8.30 p. m.—Game room; Rev. J. C. Elkins; subject, "Old China and New China;" Mr. Elkins has been a long resident of the Chinese, knows their history and speaks their language.

Tuesday, Oct. 29, 8.30 p. m.—Hall; Mr. Francis Joseph Norton; subject, "Around the World, including the Great Canals;" illustrated by stereopticon.

The association expects to follow this schedule of lectures with a series of "Health Talks" from the Medical Department; also a series of addresses on the present Canal work and future plans, such as the Gatun Dam, the La Boca Locks, Chagres Division, etc.

Five hundred and twenty-five people attended the five Isthmian lectures which were given during the month of September. The speakers were Messrs. Bundy Cole, Charles T. Manning, L. F. de Montmorency, Mason E. Mitchell and the Rev. J. C. Elkins. The subjects treated covered a period of history extending from the time of Balboa to the opening of the Panama railroad and up to America's occupation of the Isthmus.

The basket-ball game, which was to have been played at Gorgona, Oct. 5, between Gorgona and Culebra, has been postponed until Saturday evening, Oct. 12.

Mr. M. J. Stickel, secretary of the Y. M. C. A. at Cristobal, will give an address on Sunday, Oct. 13; subject, "The Man Down and Out." Mr. Stickel has been associated with almost every phase of reform work for men which is being conducted in and around Chicago, and, in the capacity of social work director of the Chicago Association, has met and dealt with nearly every class of "men down and out" from the professional "hobo" up. The Sunday club is making special effort to make Oct. 13 the banner Sunday of the month.

Forty college and fraternity banners and twenty-six pictures have been received and are to be placed about the building by the representatives of the Woman's Social club.

The fiction department of the library has been installed, and will be in circulation by Wednesday, Oct. 9.

The ancient and mysterious order known as the "G. O. Club" is becoming active, and new members are beginning to be added. The official badge can now be seen all about town.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

THE CANAL RECORD:

The I. B. of B. and H. No. 400 of Gorgona, gave a farewell reception at the home of S. E. Calvit on Monday evening, September 30, in honor of one of their brothers, Mr. T. Lounquish, recording secretary. A very enjoyable evening was spent by the blacksmiths and helpers and their wives. There were songs, music by violin, and humorous speeches, after which ice cream, cake, fruit and lemonade were served.

MRS. S. E. CALVIT.

Gorgona, C. Z., Oct. 5.

The Sojourners.

THE CANAL RECORD:

During September a club was organized among the Masonic Fraternity of Culebra to be known as The Sojourners with temporary officers.

The first regular meeting was called Friday, September 13, in Fraternal Hall, Culebra, at which it elected its regular officers as follows: L. L. Finley, president; X. W. Culbertson, vice president; G. W. Strong, secretary and treasurer.

A committee was appointed by President Finley to draft a constitution and by-laws, namely, Messrs. Kratz, Bayne, and Strong.

The officers earnestly request all Master Masons in the Culebra district to be present at the meeting Friday, October 11, to assist in drafting its constitution and by-laws.

L. L. FINLEY.

Culebra, Sept. 28.

Misdirected Letters.

The following insufficiently addressed letters originating in the United States and its possessions, have been received in the office of the Director of Posts, Ancon, C. Z., and may be secured on request of addressee:

Anderson, Wm. J.
Baker, Fred M.
Barnitt, Miss Margeritt
Bates, M. L.
Baughman, J. E.
Belding, Amoz
Cooke, C.
Desney, R.
Fetters, Wm.
Games, Miss Clara
Henderson, H. D.
Johnson, J. G.
Karatcholis, Gus Nicola
Leftwich, Miss Maggie
Linton, Miss Charlott
Madden, Daniel
McAleman, A.
Nettleton, Jno. T.
Palmer, Alex.
Pinto, Maria A. Mrs.
Randall, Mrs. Wm.
Raymond, Dr. E. H. Jr.
Robert, David A.
Roberts, A. C.
Sandiford, Martin Luther
Sherman, Robert
Thompson, W. L.
Usher, George
Wright, D, E.
Yount, J. L.

Archer, Eugene
Beverly, Bob
Brackett, Wilbur T.
Bud, Caleb H.
Burnett, Geo. C.
Dunning, Wm. E.
Finch, Donald
Georgia, George
Knapp, Wm.
Kuehnling, Peter
Long, Geo. E.
Lucas, C. K.
McLion, Etelburt
Meyers, Thos. J.
Pruyne, A. L.
Robicheaux, Mrs. L. P.
Rooney, Miss F. C., c/o J. C. Maxwell
Spier, A. G.
Stacy, Harry L,
Wright, Jno. H.

Commissary Prices.

The list of prices published last week remains unchanged with the following exceptions and additions:

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	*New Price.* CTS.
Asparagus, Jemco, 2½	*tin*	34	44
Ammonia, Parson's Household	*bottle*	8	15
Cigars, Governors	*each*	10	8
Cigars, After Supper	*do*	3	2½
Cigars, Bouquets	*do*	7	6
Cigars, Caballeros	*do*	10	8
Hats, straw, No. 3311, stock No. 36,158	*each*	1.20	1.10
Hats, straw, No. 5160, stock No. 36,159	*do*	1.70	1.55
Shoes, men's, white canvas or duck Blu. Oxfords or bals., lot No. 4118, stock No. 36,922	*pair*	$1.70	$1.50
Shoes, men's, white canvas or duck Blu. Oxfords or bals., lot No. 4119, stock No. 36,923	*do*	1.70	1.50
Soda, bi-carb., 2-oz.	*pkg.*	12	2
Soap, castile	*per lb*	11	14
Tanglefoot, fly-paper	*sheet.*	2	1½
Tobacco, Drummond's Natural Leaf	*plug*	25	20

NEW ARTICLES.

		CTS.
Buttons, collar, Krementz, gold plated, stock No. 37,511	*each*	10
Buttons, collar, Krementz, gold plated, stock No. 37,512	*do*	15
Buttons, collar, Krementz, gold plated, stock No. 37,513	*do*	12
Buttons, collar, Krementz, gold plated, stock No. 37,514	*do*	7
Buttons, collar, Krementz, gold plated, stock No. 37,515	*do*	12
Gloves, men's working, stock No 37,516	*per pair.*	85
Half-hose, tan and black, No. 5200, stock No. 37,482	*pair*	25
Pears, in syrup, "Cut Rose"	*per tin*	21
Shirts, army, wool khaki, stock No. 37,499	*each*	$3.50
Shoes, men's, oil grain, high-cut bals., stock No. 37,494	*do*	$3.45
Shoes, men's, russet garrison, stock No. 37,495	*do*	$3.50
Tomatoes, Avon 10s	*do*	33

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Mr. H. H. Rousseau, U. S. N., Culebra.
Mr. J. C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. K. DePutron, chief clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
C. A. McIlvaine, chief clerk.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, chief clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, chief clerk.
W. G. Comber, Division Engineer, La Boca.
David V. Stratton, chief clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, chief clerk.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
E. P. Thompson, chief clerk.
Wm. Gerig, Division Engineer, Cristobal.
Mrs. C. L. MacPherson, chief clerk.
Sydney B. Williamson, Division Engineer, La Boca.
E. A. LeMay, chief clerk.
W. G. Comber, Division Engineer, La Boca.
David V. Stratton, chief clerk.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Moliter, Structural Work Design.
L. D. Cornish, H. T. Tucker, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, chief clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: H. H. Rousseau, U. S. N. Culebra.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, chief clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, chief clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, chief clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, chief clerk, Cristobal.
W. C. Haskins, chief clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, chief clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon,
George R. Shanton, Chief of Police, Ancon.
H. E. McDonald, chief clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
E. H. Hale, chief clerk.
Geo. L. Campen, Water Commissioner, Ancon.
Inocencio Galindo, legal adviser, Ancon.
David C. O'Connor, Superintendent of Schools, Ancon.

Canal Zone Judiciary.

Canal Zone Judiciary: Supreme Court, Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, clerk of court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire.
Elbert M. Goolsby, Circuit Court clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court clerk, Cristobal.
Prosecuting Attorney: George M. Shontz, Ancon.
Acting Prosecuting Attorney: Thomas E. Brown, Jr., Ancon.
Translators: F. H. Sheibley and Charles M. Brown.
M. C. Kerdell, Senior District Judge, Culebra.
Thomas E. Brown, jr., District Judge, Cristobal.
J. M. Fernandez, District Judge, La Boca.
R. B. Myers, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry C. Bovay, chief clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John. L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U S. N., Superintendent, Colon Hospital, Colon.
Capt. Robert E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, chief clerk.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
W. M. Wood, chief clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, chief clerk.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Colon	*P.RR.*	*Friday*	*Oct.*	*4*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Oct.*	*5*
Trent	*R.M.*	*Saturday*	*Oct.*	*5*
Finance	*P.RR.*	*Wednesday*	*Oct.*	*9*
Venetia	*H.-A.*	*Saturday*	*Oct.*	*12*
Panama	*P.RR.*	*Tuesday*	*Oct.*	*15*
Prinz Sigismund	*H.-A.*	*Saturday*	*Oct.*	*19*
La Plata	*R.M.*	*Saturday*	*Oct.*	*19*
Dunottar Castle	*P.RR.*	*Monday*	*Oct.*	*21*
Advance	*P.RR.*	*Friday*	*Oct.*	*25*
Altai	*H.-A.*	*Saturday*	*Oct.*	*26*
Colon	*P.RR.*	*Thursday*	*Oct.*	*31*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*2*
Tagus	*R.M.*	*Saturday*	*Nov.*	*2*
Finance	*P.RR.*	*Wednesday*	*Nov.*	*6*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*9*
Panama	*P.RR.*	*Monday*	*Nov.*	*11*
Prinz Sigismund	*H.-A.*	*Saturday*	*Nov.*	*16*
Orinoco	*R.M.*	*Saturday*	*Nov.*	*16*
Dunottar Castle	*P.RR.*	*Monday*	*Nov.*	*18*
Advance	*P.RR.*	*Friday*	*Nov.*	*22*
Altai	*H.-A.*	*Saturday*	*Nov.*	*23*
Colon	*P.RR.*	*Wednesday*	*Nov.*	*27*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*30*
Atrato	*R.M.*	*Saturday*	*Nov.*	*30*
Finance	*P.RR.*	*Monday*	*Dec.*	*2*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*7*
Panama	*P.RR.*	*Monday*	*Dec.*	*9*
Dunottar Castle	*P.RR.*	*Saturday*	*Dec.*	*14*
Prinz Sigismund	*H.-A.*	*Saturday*	*Dec.*	*14*
Trent	*R.M.*	*Saturday*	*Dec.*	*14*
Advance	*P.RR.*	*Thursday*	*Dec.*	*19*
Altai	*H.-A.*	*Saturday*	*Dec.*	*21*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*24*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec.*	*28*
La Plata	*R.M.*	*Saturday*	*Dec.*	*28*
Finance	*P.RR.*	*Monday*	*Dec.*	*30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Altai	*H.-A.*	*Saturday*	*Oct.*	*12*
Colon	*P.RR.*	*Thursday*	*Oct.*	*17*
Finance	*P.RR.*	*Tuesday*	*Oct.*	*22*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Oct.*	*22*
Tagus	*R.M.*	*Wednesday*	*Oct.*	*23*
Venetia	*H.-A*	*Saturday*	*Oct.*	*26*
Panama	*P.RR.*	*Monday*	*Oct.*	*28*
Dunottar Castle	*P.RR.*	*Saturday*	*Nov.*	*2*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Nov.*	*5*
Orinoco	*R.M.*	*Wednesday*	*Nov.*	*6*
Advance	*P.RR.*	*Thursday*	*Nov.*	*7*
Altai	*H.-A.*	*Saturday*	*Nov.*	*9*
Colon	*P.RR.*	*Wednesday*	*Nov.*	*13*
Finance	*P.RR.*	*Monday*	*Nov.*	*18*
Prinz Eitel Freidrich	*H.-A.*	*Tuesday*	*Nov.*	*19*
Atrato	*R.M.*	*Wednesday*	*Nov.*	*20*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*23*
Panama	*P.RR.*	*Sunday*	*Nov.*	*24*
Dunottar Castle	*P.RR.*	*Friday*	*Nov.*	*29*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*3*
Advance	*P.RR.*	*Wednesday*	*Dec.*	*4*
Trent	*R.M.*	*Wednesday*	*Dec.*	*4*
Altai	*H.-A.*	*Saturday*	*Dec.*	*7*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*10*
Finance	*P.RR*	*Sunday*	*Dec.*	*15*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Dec.*	*17*
La Plata	*R.M.*	*Wednesday*	*Dec.*	*18*
Panama	*P.RR.*	*Saturday*	*Dec.*	*21*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*21*
Dunottar Castle	*P.RR.*	*Thursday*	*Dec.*	*26*
Advance	*PRR.*	*Tuesday*	*Dec.*	*31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*31*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Trent	*R.M.*	*Tuesday*	*Oct.*	*15*
La Plata	*R.M.*	*Tuesday*	*Oct.*	*29*
Tagus	*R.M.*	*Tuesday*	*Nov.*	*12*
Orinoco	*R.M.*	*Tuesday*	*Nov.*	*26*
Atrato	*R.M.*	*Tuesday*	*Dec.*	*10*
Trent	*R.M.*	*Tuesday*	*Dec.*	*24*

All Royal Mail steamers mentioned above and the *Prinz Eitel Friedrich* and *Prinz Sigismund* call at Kingston enroute to New York.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 23d of each month.

The United Fruit Co.'s *Preston* will again resume her run in the Colon and New Orleans trade, and is scheduled to sail from Colon, on October 23. The *Preston* has undergone a thorough overhauling at the Erie basin in New York and many improvements have been added to her.

The Canal Record

Volume I. ANCON, CANAL ZONE, WEDNESDAY, OCTOBER 16, 1907. No. 7.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

The Cucaracha Slide.

The work of removing the material cast into the Culebra Cut by the Cucaracha slide has continued without interruption day and night since the last issue of THE CANAL RECORD, and several hundred cubic yards of material have been taken out. To avoid delaying the movement of dirt trains a track is being laid from the bottom of the Cut up to the second level on the west side. This track will be completed in about a week, and when finished the movement of dirt trains will cease to be effected by the slide. This will enable the work upon the slide to be transacted more economically and without detriment to the other parts of the work. Although causing some temporary annoyance until the present wet season ends, the slide will in no way delay the completion of the Canal.

Gatun Steam Shovel Records.

The Division Engineer at Gatun reports that during the period between October 1 and October 5, steam shovels Nos. 113 and 114, at the spillway, removed 4,499 cubic yards of material, car measurement. The two shovels removed the largest amount of material on October 2, when 1,188 cubic yards were taken up. Shovel No. 114 made the largest average in any one day, having removed 858 cubic yards of material on October 5.

Vessels Carrying Cold Storage.

An arrangement has been made by the Commissary Department with the United Fruit Company for three cold storage ships a month from New Orleans, the *Greenbrier*, *Appomattox*, and *Chickahominy*. These ships have cold storage plants which occupy their entire holds and are regularly employed in carrying fruits from Bocas del Toro to Europe by way of New Orleans. They will bring from New Orleans to the Isthmus vegetables, including potatoes, turnips, carrots, and parsnips, all kinds of California fruits and apples from the Western States. The first ship with its cargo left New Orleans on October 10. The Commissary Department by this arrangement increases its plant of cold storage vessels to ten. There are five of the Panama Railroad Company's ships with a combined capacity of about 300 tons. These bring hot house vegetables, cranberries and similar products and a portion of the meat supply. There are two of the Royal Mail ships, each with a capacity of 200 tons, which come twice a month. These bring no vegetables, but meat and also fish from Southampton, England, including sole, herring, halibut and bloaters, which come through from England frozen during the entire passage.

The Commissary uses now over 3,600 tons of cold storage products monthly. It feeds about 26,000 people daily, about 6,000 of whom are white. It sends out each morning from Colon a train with 120 tons of cold storage supplies.

Fire Possibilities in Palm Trees.

During a thunderstorm on September 24, one of the palm trees near domitory No. 63, at Tabernilla, was struck by lightning. The oil in the tree caught fire and made such a fierce blaze that it was only by hard work the building was prevented from catching on fire. As a matter of precaution, the other palm trees near this building will be cut down.

September Dredging.

The following are the official figures of dredging during September:

COLON DREDGING DIVISION.

	Place measurement.
Sea-going suction dredge *Ancon*	260,773 cu. yds.
Old French ladder dredge	132,101 cu. yds.
16-inch suction dredge	10,968 cu. yds.
5-yard dipper dredge	17,000 cu. yds.
Total	420,842 cu. yds.

Of this amount, 17,000 cubic yards were dredged in the Chagres river on the site of the Gatun Dam; all of the rest was taken from the Canal prism.

LA BOCA DREDGING DIVISION.

Old French ladder dredge A-2	122,558 cu. yds.
5-yard dipper dredge	22,067 cu. yds.
Old French ladder dredge 14	9,350 cu. yds.
Total	153,975 cu. yds.

The latter dredge, No. 14, was put in commission on September 24 and operated with a single shift per day until the end of the month. Of the total amount of material excavated in the La Boca Dredging Division, 144,625 cubic yards were taken from the Canal prism, and 9,350 cubic yards from the ship channel in the vicinity of the Panama Railroad Company's wharf.

It is interesting to compare the output of the dredge *Ancon* for the month of September with that of the steam shovels. The total amount of material removed by this dredge during the month was about the same as that removed by 14 steam shovels. This dredge dumps at sea all material excavated, carrying it an average distance of about 3½ miles. To dispose of the same amount of material in the Culebra Division, would require about 30 Lidgerwood trains, of about 16 cars each per day, together with the same number of locomotives to handle these trains, and in addition a few locomotives would be required in connection with other parts of the work. The entire crew of the *Ancon* consists of about 57 persons, whereas, to excavate, transport, and dump a similar amount of earth, by steam shovels and material trains, would require the service of about 1,500 persons.

New General Manager of the Panama Railroad.

Mr. Hiram J. Slifer, who has been appointed to succeed Mr. Bierd as Assistant to the President and General Manager of the Panama railroad, arrived at Cristobal on the *Colon* on October 10, and entered at once upon his duties.

Mr. Slifer has had a very wide experience in railway matters. He was born in 1859 and was graduated from the Polytechnic College of Pennsylvania in 1880 with the degree of mining engineer. From 1880 to 1882, he was with the Mexican National Railway, and advanced from rodman to engineer in charge of construction. In 1882 he was made assistant engineer in charge of maintenance on the Philadelphia division of the Pennsylvania railroad, and during the following nine years supervised its tracks, bridges, buildings, etc. His work included the moving of several bridges bodily to new locations, and to him also fell the task of clearing away wrecks wherever they interfered with passenger traffic. From 1891 until 1892, he filled the position of assistant chief engineer of the Milwaukee, Lake Shore and Western railroad, upon its being merged with the Chicago and Northwestern, he was made engineer of the Ashland division. He held this position until 1897, and during this time designed and constructed a large amount of dockage. From 1887 to 1899, he was in charge of the construction of double track in Iowa for the Chicago and Northwestern railroad. He also supervised the rebuilding of a number of bridges and located and built several new lines. In 1899 he was made superintendent of the Iowa Division of the Chicago and Northwestern railroad. In 1902 he resigned to accept the position of general superintendent of the Chicago, Rock Island and Pacific railroad in charge of operation, motive power and maintenance between Chicago and Denver.

In 1905 Mr. Slifer resigned from active railway operation and accepted a position with J. G. White & Co., engineers and contractors in New York City, with whom he acted as steam railway expert, business manager and construction manager, being in charge of steam railway construction in Maine, New York, Pennsylvania, Virginia, and North Carolina.

He is a member of the American Society of Civil Engineers, and has been an active member of the Western Society of Engineers for several years. He is a charter member of the American Railway Engineering and Maintenance of Way Association, and while in Iowa organized the Iowa Railway Club.

THE WOMAN'S MOVEMENT.

Canal Zone Federation Formed and Constitution Adopted

By Miss J. Macklin Beattie.

The culminating point of the work of organizing women's clubs in the Canal Zone by Miss Helen Varick Boswell was reached on Saturday, October 12, when the conference of delegates took place at the Hotel Tivoli. There were present a large number of members of the different clubs, and women interested in the movement signified their sympathy and intention of becoming members by their presence.

The meeting was held in the President's suite, the rooms being decorated. Flags draped at either end of the long veranda gave the stamp of national character to the occasion. The first fifteen minutes were claimed by the official photographer, who had been detailed to take the group, after which the meeting adjourned to the sitting room, when the regular business was proceeded with.

Miss Boswell in a short address welcomed the delegates and visitors and explained the nature of the meeting, which was for the purpose of organizing the chain of Zone clubs under a specific title for affiliation with the General Federation of Women's Clubs. She spoke briefly of the work that had already been done in the short time since the clubs were organized, of the interest in which the women were taking up the work along the lines indicated in the constitution,—the home, educational, philanthrophy, and music and literature, and of the broad scope and possibilities of the future. "It is a historic occasion," she said, "which has brought together such a gathering of women from one end to the other of the Zone."

Acting as chairman, Miss Boswell then proceeded with the business of the day, requesting a roll call of the delegates. This was taken by Mrs. Ralph D. Wolf, of Gorgona, acting as secretary, *pro tempore*, with following results:

Ancon—Mrs. W. C. Gorgas, Mrs. T. C. Lyster, Mrs. E. F. Quinby, Mrs. Charles H. Jewett.

Pedro Miguel—Mrs. R. B. Walker, Mrs F. K. Roberts, Mrs. H. N. Shicks, Mrs. Edna Fraser

Paraiso—Mrs. J. C. Barnett, Mrs. J. K. Bawner, Mrs. E. S. Waid, Mrs. Wm. Lowe.

Empire—Mrs. F. M. Miracle, Mrs. J. E. McTyier, Mrs. G. T. Bennett, Miss Eunice Browning.

Gorgona—Mrs. N. F. Morrison, Mrs. S. E. Calvit, Mrs. C. Begstrom, Mrs. R. D. Wolf.

Gatun—Mrs. J. L. Brownell, Mrs. A. B. Shippee, Mrs. J. L. Elliott.

Cristobal—Mrs. L. C. Collins, Mrs. John Burke, Mrs. M. C. Rerdell, Mrs. F. K. Powell.

There were no representatives from the Culebra club.

For the election of officers of the Canal Zone Federation of Women's Clubs, a slate was presented, the following candidates being unanimously elected:

President—Mrs Geo. W. Goethals, Culebra.
Vice presidents—
  (1) Mrs. Lorin C. Collins, Cristobal.
  (2) Mrs. W. C. Gorgas, Ancon.
  (3) Mrs. Wm. L. Sibert, Culebra.
  (4) Mrs. Chester Harding, Gatun.
Recording secretary—Mrs. F. M. Miracle, Empire.
Corresponding secretary—Mrs. Lewis Baker, Cristobal.
General Federation secretary—Mrs Ralph D. Wolf, Gorgona.
Treasurer—Mrs. F. R. Roberts, Pedro Miguel.
Auditor—Mrs. J. C. Barnett, Paraiso.
Chairman of the Advisory Committee—Mrs. Frank Morrison, Gorgona.

Mrs. Lorin C. Collins then took the chair, and the Articles of the Constitution were voted upon seriatim, and adopted. It was also voted that the quarterly meetings of the Executive Committee, *i. e.*, officers, should be held at different stations along the line, due notice of the date and place to be sent by the secretary. The fiscal year begins in October, when elections are held and dues are payable, and business of like nature is to be transacted.

A motion to elect Miss Boswell honorary president of the Zone Federation was made, but as it was not in order, Miss Boswell being a non-resident of the Isthmus, the motion was amended and Miss Boswell was made honorary member of all the Zone clubs. The motion for a rising vote of thanks to Miss Boswell for her work among the women on the Isthmus was responded to with enthusiasm.

Following the adjournment of the meeting an informal reception was held, tea being served on the veranda.

The presidents of the seven Zone clubs represented held a short informal meeting for the purpose of conferring on several points. The newly elected executive officers of the Federation of Zone Clubs also convened for a short time.

Miss Boswell sails on Thursday, October 17, to resume her work with the National Civic Federation. While her work on the Zone has been attended with many pleasant features, it has been hard work of a nature requiring utmost tack and diplomacy, and the results have far excelled the expectations of any one here. It was just "the little push from the outside" that the women on the Isthmus needed to bring out the best that is in them to enable them to see their responsibilities toward each other and the community in which they live. Club life will mean new life to the American women in the Zone.

The organization of the eighth in the chain of Canal Zone Women's Clubs was perfected Wednesday, Oct. 9, in Ancon, when a party of representative women met Miss Boswell in the Hotel Tivoli for the purpose of discussing the question.

The women of Corozal were well represented on this occasion, and joined heartily in the movement. They will unite for the present with the Ancon club, as their own community is so small.

Following the preliminaries, when every woman present had expressed herself as willing, not only to become a member but to promote the interests of the club, and unite in its effort toward public and social good the following governing officers were elected: Mrs. W. C. Gorgas, president; Mrs. J. M. Maguire, vice president; Mrs. Lyster, secretary; Miss Russell, treasurer. Delegates were elected for the conference on Saturday, October 12. The president called the first meeting of the club for Wednesday, October 16, at 2.30 p. m. The Hotel Tivoli has kindly offered to place a room at the disposal of the women for the club meetings.

There is so much scope for the development of club life in Ancon that the organization promises to be an active one. Spanish classes will be arranged for; there is talk of a physical culture class, and club riding parties. Little club card parties will also be formed.

The Woman's Club at Paraiso held its regular meeting on Tuesday afternoon, October 8, the president, Mrs. J. C. Barnett, being in the chair. Miss Boswell was the guest of honor on this occasion. A musical programme was given.

It was decided that the club should give a Hollowe'en party, the details to be arranged later. Mrs. Healy was elected chairman of the entertainment committee, to be assisted by Mrs. Lowe and Mrs. Waid.

SOCIAL AND PERSONAL.

Commissioner H. H. Rosseau sailed on the *Dunottar Castle* for a month's leave in the States. He will return early in November.

Dr. H. R. Carter, Director of Hospitals at Ancon, accompanied by his wife and daughter, will sail on the *Colon* on October 17, for a six weeks' visit to the States. They expect to return on the *Dunottar Castle*, due to sail from New York on November 29.

Mr. Harry Day Reed, Executive Secretary, was married in Washington, D. C., on Saturday, September 28, to Miss Allis Fraem Mitchell, of Emmorton, Md. Mr. and Mrs. Reed will be home at Ancon after November 1.

Mr. A. Bruce Minear, General Secretary of the Y. M. C. A. on the Zone, will sail on the *Colon* on October 17 for a vacation of eight weeks in the States. Mr. F. C. Freeman will be acting general Secretary during his absence.

Among the passengers on board the *Colon*, which arrived at Cristobal on September 10 were: Mrs. Sydney B. Williamson and daughter, Mrs. P. O. Wright, jr., and two children, and Mrs. Geo. L. Campen.

Professor David Todd, professor of astronomy and director of the Astronomical Observatory at Amherst College, Mass., accompanied by his wife and daughter, has been on the Isthmus since October 8, and will sail on the *Colon* for New York to-morrow. He left the States with his family on May 11 last, arriving here on the 17th, and sailing for Lima on May 21. From Lima he went to Iquique and established an astronomical station in the desert of Tarapaca, for the purpose of taking photographs of Mars. He observed the eclipse of the sun on the 10th of July, and for six weeks took photographs of Mars every night, obtaining about 7000 photographs in all. In these the so-called "double canals" of Mars were photographed for the first time. Professor Todd returned to Lima on August 1, and spent six weeks there at high elevations for the purpose of testing his compressed air tank, which he has designed for use in taking observations at high altitudes.

OFFICIAL CIRCULAR.

General Manager Panama Railroad.

CULEBRA, C. Z., October 11, 1907.

Effective this date H. J. Slifer is appointed Assistant to the President and General Manager of the railroad and steamship line, in charge of operation, maintenance and lands. Local officials of the above departments will report to him. Local officials of the Traffic, Accounting and Purchasing Departments will report to the vice president.

GEO. W. GOETHALS,
President.

HEALTH REPORT FOR SEPTEMBER.

Conditions Continue Good.

To the Chairman,
Isthmian Canal Commission,
Culebra, C. Z.

SIR: I herewith transmit report of the Sanitary Department for the month of September:

The health conditions of the Zone continue good. As is usual at this time of the year the sick rate is decreasing. It usually reaches its maximum in August and is at a minimum in May. Of course it fluctuates more or less between these dates. The sick rate for September was 27.78 per thousand, and for August 29.02, a decrease of nearly two (2) for September as compared with August. The same rate for September, 1906, was 37 per thousand.

The number of employes on our rolls on the 1st of September was the largest that has so far appeared on the rolls of the Commission—slightly over 41,000. In September, 1906, we had something over 28,000 employes. Among these 28,000 employes we had 135 deaths, which gave us an annual death rate of a little over 57. In September, 1907, we had 41,000 employes, with 98 deaths, giving us an annual death rate of a little over 28 per thousand—quite a marked improvement.

Among our 4,200 American employes we had two deaths, giving us an annual death rate of 5.71, about the same as last year.

In September for 1906, the total population of the Zone was 76,000, from which population we had 350 deaths, giving us an annual death rate of a little over 54 per thousand. In September, 1907, the Zone population was 108,000, in which population we had 297 deaths, giving us an annual rate of a little over 32 per thousand, showing a very marked improvement in the death rate, both of the laboring force and the general population.

No case of either smallpox or yellow fever occurred on the Zone during the month.

Very respectfully,
[Sgd] W. C. GORGAS,
Chief Sanitary Officer.

SANITATION—CITY OF PANAMA.

The usual forces have been engaged, and the work has gone on satisfactory. The Stegomyia and Anopheles work is being prosecuted with vigor as is the yard inspection. The health of the community is good, no contagious diseases were reported during the month, and there was no one disease especially prevalent.

CANAL ZONE—GARBAGE COLLECTION.

The quantity of garbage to be disposed of is constantly increasing, and at the present time about 3,800 cans are removed per day. The settlements are scattered out along the line and it has become necessary to cut down the distance that this garbage has to be transported. At the present time there are garbage furnaces in operation at Gatun, Tabernilla and Empire. Similar furnaces are now being constructed at Culebra and Gorgona, and in fact will be installed at all of the large settlements.

MOSQUITO WORK.

At all stations along the line special attention is being given to the eradication of anopheles breeding places. At La Boca much reliance is necessarily placed upon the use of oil at the present time. The swampy area can not be drained until the new drainage canal is completed, but nevertheless the malarial hospital cases in that district during the month have been kept below one half of one per cent of the working force.

In the Ancon District the swamps adjacent to the Panama railroad track are being filled in as rapidly as possible.

At Corozal where the grade allows, drain tile is being laid and the swamp to the north of the mess hall is being drained off.

At Pedro Miguel there is little malaria, except at Forty Mile Camp and there drain tile is being used to take care of the seepage water that collects from the hill above and near the site of the camp.

At Paraiso the entire area between the American settlement and the native village known as Mon[illegible]town is being tile drained. The tile drain at Cartagena near the Paraiso railroad station has given satisfactory results, and there is but little malaria at said camp as compared with the last year.

Also a large amount of tile drain is being installed at Culebra, Tabernilla and Gatun.

MALARIA

During the month of September there has been less malarial fever among employes than in the previous month. The average percentage of malarial cases sent to the hospital among all employes for the past nine weeks was, as follows:

Week ending	Aug.	3, 1907	....	1.56	per cent
" "	"	10, 1907	....	1.69	" "
" "	"	17, 1907	....	1.47	" "
" "	"	24, 1907	....	1.62	" "
" "	"	31, 1907	....	1.25	" "
" "	Sept.	7, 1907	....	1.43	" "
" "	"	14, 1907	....	1.19	" "
" "	"	21, 1907	....	1.30	" "
" "	"	28, 1907	....	1.03	" "

During the past three weeks there has been a steady decrease of malarial fever at Gatun, which had given the highest malarial rate in the Zone during the preceding months.

In Gorgona and Culebra Districts there has been very much lower malarial sick rate than during any previous September since American occupation of the Isthmus.

QUARANTINE SERVICE

Health conditions in the ports, both south and north on the Pacific side remain about the same as last reported, while on the Atlantic seaboard yellow fever has been reported at several ports, against all of which, however, a quarantine was in effect

From Costa Rico a death from yellow was officially reported under date of September 4, at San Mateo about forty (40) miles west of San Jose. The history of this case, however, showed that about five (5) days after having left a town about forty (40) miles from Port Limon, the man was taken ill and subsequently died. The autopsy confirmed the diagnosis of yellow fever.

Under date of September 24, another case of yellow fever was officially reported from the same neighborhood from which this man came. This is the same district in which yellow fever occurred last year. Under these circumstances it was deemed advisable to again impose quarantine against passenger travel from Port Limon as it was reported that unrestricted intercourse existed between that port and the infected district.

On September 9, the British steamship *Atrato* arrived at Colon with 456 passengers including 232 contract laborers, among which was a case of smallpox. The entire personnel was vaccinated except such as had "taking" vaccination; their effects were disinfected; the ship fumigated and contacts detained in quarantine. No other case occurred while detained.

Amended Building Laws

The new building regulations of the Canal Zone, published in THE CANAL RECORD of Sept. 25, were amended at the meeting of the Isthmian Canal Commission on September 25, by certain changes in paragraphs 4, 9, and 11. The amended paragraphs now read as follows, the new matter being printed in italics:

There shall be either a free space of not less than fifteen (15) feet between buildings or else the walls shall be joined together with no intervening space: *Provided, That no building shall be erected in immediate juxtaposition to an existing building, except with the prior consent in writing of the owner of the existing building.* In this free space no outhouses, annexes, or verandas, steps nor staircases shall be built, and no material of any nature shall be stored therein. *On land held under lease from the Isthmian Canal Commission, and adjacent to a building the property of the Isthmian Canal Commission, no new building shall be constructed except at such distance from adjoining building of the Isthmian Canal Commission as may be prescribed by the Department of Sanitation.*

9. There shall be a free space of fifty (50) feet between the back of one house and that of another when the houses face on different streets with back to back; *Provided,* That in special cases, to be determined by the Head of the Division of Municipal Engineering, they may adjoin. Furthermore, there shall not be built sheds, balconies, or annexes of any description, *except privies as provided in paragraph 11,* in this free space, and no material of any nature shall be stored between houses.

11. Attached to each house there shall be a fly-proof privy, *the front line of* which shall be located at a distance of not less than twenty (20) feet from the house. *There shall be a free space of four feet between the backs of the privies.* This requirement shall not apply when sewer connections are made.

Testimonial to Mr. Stevens.

[*From the Washington Herald, Sept. 28.*]

John F. Stevens, one of the vice presidents of the New York, New Haven & Hartford Railroad, and former chief engineer of the Panama Canal, has received three handsome gifts from the employes on the Isthmus as a testimonial of their regard and admiration.

Mr. Stevens' service on the Canal work extended over the period when the lock type was determined upon, and the work given a successful start. His leadership was supported by remarkable loyalty among all classes of employes. A committee of Canal officials purchased, with the funds subscribed by the employes, a magnificent silver service, each piece of which is engraved with the Stevens monogram; a gold repeater watch, and a ring with a unique setting containing a two-carat diamond. The tray of the silver set is engraved "Mr. Stevens, from Canal employes," and the salver is engraved with a scene showing the completed Canal, with the locks and dams and other characteristic features.

At the request of the members of the University Club of Panama, which is largely composed of Canal officials, Mr. Stevens has presented the club with a large autograph photograph of himself, which will be hung in a position of honor with those of President Roosevelt and Secretary Taft.

Concert.

By the I. C. C. Band at Cristobal Point, C. Z., Sunday, October 20, at 2.15 p. m.:

PROGRAM:

1	March	*La Fiesta*	Roncoveri
2	Waltz	*Symposia*	Bendix
3	Selection	*Prince of Pilsen*	Luders
4	Intermezzo	*Starland*	O'Connor
5	Trombone solo	*Young America Polka* JAMES M. GILLIES.	Levy
6	Medley selection	*Remick's Hits*	Lampe
7	Patrol	*The Blue and Grey*	Dalbey
8	Overture	*Raymond*	Thomas
9	Descriptive	*The Cavalry Charge*	Luders

Synopsis—Morning of the battle; infantry heard approaching with fifes and drums; cavalry in the distance, coming nearer and nearer until they charge upon the enemy; cavalry, infantry and artillery in the melée of the battle; defeat of the enemy, pursued by the cavalry in the distance.

10	March	*Dunlap Commandery March*	Hall

CHAS. E. JENNINGS,
Musical Director.

The next concert will be given at Culebra, C. Z., Sunday, October 27.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Church Services.

THE CANAL RECORD:

I beg to draw your attention to the fact that services are held at the Protestant chapel, Ancon, adjoining the bachelor's quarters, every Sunday at 9.15 a. m. These services are conducted by ministers of different denominations, and rotate in the following order:

First Sunday in the month: Rev. M. Britton King, visiting chaplain.

Second Sunday: Rev. J. L. Wise, of the Baptist church.

Third Sunday: Rev. J. C. Elkins, of the Methodist Episcopal church.

Fourth Sunday: Rev. E. O. Eskins, of the Episcopal church.

Fifth Sunday: Visiting chaplain.

This information may be of interest to some of the readers of THE CANAL RECORD, for this reason I send this communication, in the hope that it may be inserted in the paper.

M. BRITTON KING,
Visiting Chaplain, Ancon.

Panama, R. de P., Oct. 4.

Card of Thanks.

THE CANAL RECORD:

Mr. and Mrs. Wm. MacIntyre, through the columns of THE RECORD desire to express their grateful appreciation of the kind aid and attention rendered by the physicians of the Commission located at Culebra, as well as the Ancon hospital officials, on the occasion of the burial of their infant child, October 8, 1907.

WM. C. MACINTYRE.

Culebra, Oct. 12.

Regular Army and Navy Union.

THE CANAL RECORD:

I am pleased to find the result shown by my letter published two weeks ago in regard to organizing a garrison of the Regular Army and Navy Union, and wish to state that a meeting will be held in a few days, when I will institute the new garrison.

Notice of meetings will be posted in all towns along the railroad in conspicuous places, and hope that the result will be as good or better than the last notice.

L. E. HERMAN,
A. I. G., R. A. and N. U.

Empire, C. Z., Oct. 5.

Improved Order of Red Men on the Zone.

THE CANAL RECORD:

On Saturday evening, October 5, of the Common Era, on the fifth sleep of the Travelling Moon, there was chosen by the chief of this tribe a new set of chiefs, principally young men who have the interest of the order at heart and will devote their leisure time to the improvement of it. Therefore, we shall be pleased to entertain any visiting brothers on any Saturday's sleep they care to call at Fraternal Hall. The following is the new list of chiefs, all of whom are employes of the Division of Building Construction:

Wm. C. McIntyre, clerk, sachem.
Harry E. Earle, carpenter, senior sagamore.
Paul D. May, clerk, junior sagamore.
M. D. Cantwell, foreman carpenter, prophet.
C. S. Keegan, clerk, chief of records.
Wm. Wirtz, carpenter, collector of wampum.
Albert Berger, foreman carpenter, keeper of wampum.

C. S. KEEGAN,
C. of R., Chiriqui Tribe No. 1.

Culebra, C. Z., Oct. 10.

Gorgona Burns Social Club.

THE CANAL RECORD:

Kindly insert in your columns for the benefit of our members who have been transferred to various places along the line, that we hold our meetings on the first and third Saturdays of each month at 7.30 p. m. in the Assembly Hall. All persons interested in the objects of the club will be welcomed as members.

A. VEITCH,
Secretary.

Gorgona, C. Z., Oct. 9.

University Club.

The annual election of the University Club will be held at the Club House, Sunday, October 20, 1907. Ballots will be mailed to all members, who are requested to return the same to the committee which will be at the Club House for the purpose of counting same, from 9. a. m. to 3. p. m. on said date.

The annual meeting will be held on same date, beginning at 2 p. m.

MASON E. MITCHELL,
Secretary.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

REPORT FOR SEPTEMBER, 1907.

Total membership, September 30	1,665
Total number bowling games	6,036
Average per day	240
Total number of pool and billiard games	10,998
Average per day	444
Total income from soda fountain	$1,312.30
Average income per day	43.76
Number of different men using gymnasium	198
Number enrolled in chess and checker clubs	90
Number of men enrolled in glee club	34
Number enrolled in dramatic and minstrel clubs	37
Number enrolled in debating club	19
Number enrolled in camera club	4
Number enrolled in orchestra club	24
Number enrolled in Bible club	15
Number enrolled in Spanish classes	65
Number enrolled in mechanical drawing classes	11
Number of Sunday meetings	12
Average attendance	73
Number of educational, practical and travel talks	10
Average attendance	85
Number of imported entertainments	5
Average attendance	220
Number of local entertainments	8
Average attendance	127
Number of functions outside of association management	11
Average attendance	113
Number of afternoons for women	35
Average attendance	20
Number of evening functions to which women were invited	44
Average attendance of women	34
Number of committees	50
Different men on committees	229
Number of letters written at public tables	6,350
Average per day	211
Total attendance at building exclusive of functions by outside clubs	21,960
Average attendance per day	732

CRISTOBAL.

The moving picture and stereopticon entertainment given by the American Stereopticon View Company, was so generally enjoyed that a return engagement was secured for last Friday night. Half of each program was a travel lecture, illustrated by stereopticon pictures, and half an exhibition of moving pictures.

A committee is being formed for the purpose of giving a local talent black-face minstrel show in the near future.

The billiard and pool tournament, under the direction of Mr. M. L. Padgett, is well under way. Preliminary games have been won by Messrs. Greegor and Straw.

Mr. C. K. Turner has been elected chairman of the Chess and Checker club, and under his direction an open tournament is being held for the purpose of selecting players for the Inter-Association league.

Half an hour each Monday night is given over to boxing. As soon as a competent instructor can be secured, regular lessons will be given.

Judge Thomas H. Brown, jr., will represent the Cristobal association at the Gorgona conference of Sunday clubs.

EMPIRE

On Wednesday evening, Oct. 9, the members of the Y. M. C. A. and friends enjoyed a concert by the I. C. C. band under the direction of Mr. Charles E. Jennings.

Friday evening of last week Mr. Chas. T. Manning gave a lecture on his experience of thirteen years in Central America. The lecture was not only interesting from a historical point of view, but contained much information regarding the condition of the country.

The Y. M. C. A. Bowling League.

STANDING OF TEAMS OCT. 5.

Team.	—Number of Games Played.	Won.	Lost.	Per cent.
Cristobal	27	18	9	.6666
Empire	27	17	10	.6296
Gorgona	27	14	13	.5185
Culebra	27	5	22	.1852

Highest individual scores—

Empire club	Williams	234
Cristobal club	Murray	227
Gorgona club	Booth	213
Culebra club	Oliver	210

Highest individual average for three consecutive games—

Empire club	Williams	204⅓
Gorgona club	Sprecken	194
Cristobal club	Gilmartin	192
Culebra club	Lamster	180⅔

Culebra Minstrel Show.

The Culebra Minstrels, composed of men of the Culebra Y. M. C. A., gave their first entertainment in the Commission club house at Culebra on Thursday evening, Oct. 10, when the following program was presented:

FIRST PART.

1 *Opening chorus*—Medley........*By the troupe*
2 *Coon song*—Good-bye, Mr. Greenback.*J. C. Parsons*
3 *Solo*—Somewhere........*W. S. Holstead*
4 *Coon song*—He's a Cousin of Mine.......*F. D. Flynn*
5 *Quartet*—Annie Laurie...*J. P. Avis, W. C. Poore, W. H. South, G. H. Holmes.*
6 *Coon song*—Let It Alone........*W. V. O'Reilly*
7 *Solo*—Asthore........*W. F. Bennyhoff*
8 *Coon song*—I'm Sorry........*H. A. Tiernan*
9 *Solo*—Armorer's Song........*G. H. Holmes*
10 *Quartet*—Dear Old Girl...*J. P. Avis, W. C. Poore, W. H. South, G. H. Holmes*
11 *Closing chorus*—The Good Old U, S. A........*By the troupe*

SECOND PART.

1 *Clog Dance*.......*Tom Garrett, A. Mulholland*
2 *Monologue*........*J. C. Parsons*
3 *Mandolin and Guitar duet*.. *W. E. Tragsdorf, A. S. McLaren*
4 *Song and dance*........*H. A. Moore*
5 *Banjo solo*........*C. R. Ray*
6 *A Few Irish Reminiscences*......*R. A. Stewart*
7 *Something Else.*

An audience of 500 persons was in attendance, and exhibited much enjoyment at the performance. A request has been made to the minstrels to repeat their show at Culebra, and also at Empire, Gorgona and Cristobal. It is understood that they will do so in the near future. The following are the members of the organization:

Interlocutor—*R. M. Sands.*

End men—*J. C. Parsons, F. D. Flynn, W. V. O'Reilly, H. A. Tiernan.*

Middle men—*W. S. Holstead, W. F. Bennyhoff, J. P. Avis, W. C. Poore, W. H. South, G. H. Holmes, H. B. Avis, B. L. Jacobson, F. X. Ward, J. C. Kittell, C. R. Ensey, J. H. Depew, F. S. Wickman, Hugh McPherson, F. G. Demoll, J. N. England, W. E. Tragsdorf, A. S. McLaren, Tom Garrett, H. A. Moore, C. R. Ray, R. A. Stewart.*

Directors—*J. C. Parsons, R. A. Stewart.*

Accompanists—*Edw. Arnheim, J. W. Talty, Jas. McNeal.*

Designer of stage and motto—*H. H. Baumer.*

Electrician—*S. G. Forbes.*

THE CRITICISMS OF MISS BEEKS.

Brief Summaries of Them with Comments by the Isthmian Canal Commission.

Copies of the report of Miss Gertrude Beeks to the National Civic Federation, setting forth the results of her investigation of the conditions surrounding the employes of the United States on the Isthmus were referred by the Chairman of the Isthmian Canal Commission to each member of the Commission and to the Head of the Commissary Department of the Panama Railroad Company, with the request that each of these persons should read the criticisms made upon his branch of the service and submit to the Chairman in writing his replies thereto. From these replies the following statement has been compiled as a general comment by the Commission on the criticisms and suggestions advanced by Miss Beeks, the order of her report being followed as nearly as possible.

Criticism.

That cold shower baths are not advisable for family use, that all men can not use cold shower baths, that tub baths should be substituted in married quarters, and special bath houses, with hot water, should be provided for bachelors.

Comment.

The temperature of water as it issues from the tap never varies appreciably from the average temperature of the Isthmus, which is 79 degrees, so that the term "cold shower bath" on the Isthmus has not the same meaning as in the United States. There is no complaint from bachelors as to the necessity for hot water. The demand comes entirely from women living in married quarters, who, as Miss Beek says, "may have water heated on their cook stoves." The additional cost per family for installing tub, hot water boiler and all fittings, in lieu of cold shower baths, would be approximately $100. In the opinion of the Chief Sanitary Officer, the shower bath, as supplied, covers every sanitary necessity.

Criticism.

In speaking of inadequate quarters for Isthmian Canal Commission employes, Miss Beeks states that 1,000 men in construction gangs of the railroad are quartered in box cars.

Comment.

These are not Commission employees, but Panama railroad laborers, engaged on Maintenance of Way, and in the relocation of the Panama railroad. The nature of their duty is such that they can not be permanently quartered at any of the Commission's labor camps.

Criticism.

There is great need of additional family quarters. The single houses are more desirable than the four family houses now being constructed. It is desirable for various reasons to have more family life on the Isthmus.

Comment.

At present there are 900 families upon the Isthmus. There is great demand for additional family quarters, amounting to several hundred. It would require a million and a half dollars during the present fiscal year to supply this demand. The funds available for the present fiscal year will not permit more family quarters being constructed. The cost of building separate quarters is fully 50 per cent in excess of that of the four family type. For 1,000 families this would represent an increased cost of fully $1,000,000 in building alone. Furthermore, detached houses by covering a greater area, would mean increased expense in the construction of roads, delivery of commissary supplies, coal, distilled water, and other things which are furnished free by the Commission. In general, the cost of providing a home for a family is from six to ten times that required to provide a home for a bachelor, depending upon the type; that is to say, the conditions being the same, if it requires $250 to furnish quarters for a bachelor, it will require $2,500 to furnish quarters for a family.

Criticism.

More bachelor quarters are needed. Many are sleeping four in a room, and often times they are not congenial to one another.

Comment.

Bachelor quarters will be adequate when buildings now under construction are completed. The placing of four men in a room is the exception and not the rule, for not 5 per cent of the American employes of the Commission are quartered in that way. At points where there are four in a room ample quarters are under construction and near completion, for the purpose of providing for this small percentage. Effort is always made to arrange transfers so that men may obtain congenial companions but it is impossible when new men come in to take up the question of congeniality in quartering them. Men are assigned to vacancies where they exist and afterwards, if both parties are willing, transfers are made.

Criticism.

In Colon hospital the sleeping rooms are small. The nurses' dormitory should be better protected from rain. During severe storms the apartments on the first floor on the ocean side are pretty well drenched, and on the top floor it was authoritively stated that nurses have been known to sleep with umbrellas over them because the rain beats in through the ventilators.

Comment.

When the nurses' dormitory was first occupied in November last the outside blind doors and shutters of the rooms had not all been put in place and an unusually severe northerly storm occurred in December, when the building was wet and uncomfortable. A building so constructed that it would not be affected more or less by the wind and rain during such a storm would be practically uninhabitable during the remaing 363 days of the year in the tropics. The nurses' dormitory is free from structural defects and is admirably designed for its purpose. It has a sound, rainproof, ventilated roof, and no complaints have been made by any of its occupants during the past seven months.

Criticism.

Drying rooms should be provided for bachelors.

Comment.

Plans for drying rooms for bachelors and laborers have been approved, and two experimental drying rooms, one at Gatun and the other at Cristobal, are nearly completed. When it is demonstrated that the experimental ones are utilized, additional ones will be constructed. Thirty-eight are contemplated at present, at a total cost of $40,000.

Criticism.

Another serious difficulty is the existence of bedbugs and vermin to such an extent as to cause serious discomfort.

Comment.

This is an evil to be expected in a climate so favorable to insect life. The Commission combats it by every means in its power. Fumigators have been erected at nearly all points along the line, and the mattresses of men who complain are fumigated at once, and all mattresses are put through the process at short intervals.

Criticism.

Janitor service is very poor in the bachelor quarters, and it would seem desirable to affect some understanding with the Government of Panama whereby Chinese servants might be secured for general housework.

Comment.

The janitor service is not ideal, but the standard of efficiency has greatly improved, and a system of inspection has been put in force, whereby all rooms are scrubbed out twice weekly. The laws of the Panama Republic prohibit the introduction of Chinese.

Criticism.

There was much dissatisfaction among the American bachelors who were sleeping upon cots. All had been promised beds, but many had not yet received them. There was also dissatisfaction because of the inability to get furniture.

Comment.

There are practically 8,000 white employes of the Commission and Panama Railroad Company, not all of whom are Americans. Possibly 2 per cent of this number are sleeping on cots, but this fact is due to the loss of a steamer with 128 beds on board. All of the men are provided with mattresses, even those who are sleeping on cots. There has been a shortage of furniture, but it is due first to the burning of the Mount Hope storehouse with a large quantity of furniture, and second to the delay of filling all kinds of orders in the United States, which has extended from three to six months after the date of agreed delivery.

Criticism.

Copper screen is required in the climate of the Isthmus, where everything rusts, and yet iron screen has been received largely. It was observed on new quarters and hospitals to have split in a few weeks. It has been accepted in a spirit of desperation as better than nothing.

Comment.

Nothing but brass screening has been ordered or used. Some of the brass screening has proved defective and payment for the same withheld from the contractor.

Criticism.

According to modern tenement house laws, the air space in quarters for laborers should not be less than 400 cubic feet for each adult. In only one type of house has that number been allowed. The majority of cots are of canvas, but many are made of metal lattice work on which the men lie with nothing underneath them. It was officially stated that 1,000 metal cots were secured as an experiment, that they have now been adopted as the standard type, and that more have been ordered.

Comment.

There is not a camp on the Isthmus where there is not over 400 feet of air space per man. With the exception of two camps, none of the laborers' barracks contains 75 per cent of its capacity, and some camps are entirely deserted. There is a superabundance of laborers' quarters on the Isthmus. A trial order of 1,000 metal cots was placed, but they were found to be unsatisfactory, and are being covered with canvas as fast as it can be obtained. An effort has been made, unsuccessfully, to cancel an order for another 1,000 cots, but those will be covered with canvas after they arrive. They have not been made the standard type, and they constitute less than 10 per cent of the total number of cots or bunks available.

Criticism.

In the location of camps the recommendations of the Sanitary Department have not always been adopted, and they have sometimes been placed on low ground, which would make them unhealthful, because proper drainage was not feasible.

Comment.

The great majority of labor camps on the Isthmus were old French camps and have been located twenty years. Only one of the labor camps has been located without the approval of the Sanitary Department, and that was at Tabernilla, which the necessity of the work demanded, but at which every sanitary precaution advocated by the Sanitary Department has been taken.

Criticism.

The prices at the Hotel Tivoli are high and the service is poor. There is no hot water in the bathrooms. The rooms are poorly arranged, and the food is absolutely abominable. Employes of the hotel are not permitted to attend dances in the hotel, and it is not what it should be, a congregating place of employes.

Comment.

The Hotel Tivoli was not intended primarily for the accommodation of employes, but was intended to be run on a commercial basis. Much of the criticism is true, but it applies to the past rather than to the present. The service and food have both been improved. The transient prices for employes have been reduced. Employes of the hotel are not forbidden to attend dances but only those who are on duty are forbidden to attend, because their presence at their posts is necessary for the convenience and comfort of the patrons of the hotel.

Criticism.

It may have been a mistake to use macadam for paving the streets of Colon, but it is claimed that brick can be laid over it. Paving is one of the contributions to the Panamanian Government for the privileges of constructing the Canal.

Comment.

The use of brick paving in Colon in place of macadam would have increased the cost several times, and the water rates to amortise the cost of such expensive pavement would have been prohibitive. Paving is not one of the contributions to the Panamanian Government for the privilege of constructing the Canal. The entire cost of the work will be reimbursed to the United States, both in Colon and Panama.

Criticism.

Distillation and sterilizing plants have been placed in some camps to supply pure and palatable drinking water. Distillation should be adopted in preference to sterilization, and the work of installing distillation plants should be pushed.

Comment.

Drinking water at various points is supplied by distilling plants. Additional plants will be built as soon as funds are available.

Criticism.

An effort to secure distilled drinking water at the Gorgona shops has not met with success. The plan of having the water circulate in pipes around the ice, preventing its direct contact with the water, would be most desirable. This method is successful in factories in the States, and the failure at Gorgona should not discourage a further effort in that direction.

Comment.

There has been no failure whatever at the Gorgona shops in the supply of distilled water through pipes circulating around ice. An ample supply of cool, distilled water available for all employes, is supplied in precisely that manner.

Criticism.

It is desirable to extend the lighting of streets to all villages no matter how remote.

Comment.

The principal settlements have been wired and are now lighted by electricity. It is not proposed to extend this system of electric lighting to the smaller detached camps and settlements, as the value to be derived would not warrant the cost.

Criticism.

The lack of nutritious food undoubtedly has been the cause of dysentery and other ailments.

Comment.

The Chief Sanitary Officer says: "I have not come across a single case of dysentery or other serious ailment that I could attribute to the character of the food eaten."

Criticism.

At the Ancon hospital there is undoubtedly justifiable complaint with reference to food for employes of the hospital and patients. It is claimed that "it is cold every day in the year." It is cooked in a central kitchen and distributed throughout the grounds to the wards, mess halls and nurses quarters, patients and employes eating the same food.

Comment.

The Chief Sanitary Officer says: "I take my meals at the mess to which Miss Beeks refers and every day see the food served patients. It is exellent, plentiful and nutritious. I hear very few complaints with regard to food at Ancon Hospital, and none of the complaints I have heard seem to be justified. It is true that the food is cooked at a central kitchen and sent around from that point to the different wards, but each set of wards has a local heating apparatus, generally electric, where this food is warmed up before being served."

Criticism.

Efficient cooks are needed. Chinese are noted for being good cooks; they might be secured for such service, and the use of the other type discontinued. There should be one chief cook, competent to command a much higher salary than now paid, who would devote his time to supervising and training the cooks, with a view to placing all mess halls on an equal basis.

Comment.

Efficient cooks are needed, but great difficulty is experienced in securing them. Out of 22 cooks who came to the Isthmus within the last four months, six remain, and but two of these are first class. The others have been discharged or have resigned. The suggestion of a supervising cook is a good one, and it is hoped can be put into effect. Chinese can not be secured because of the prohibitive immigration law of the Panama Republic.

Criticism.

There should be a more rigid examination of food supplies before being shipped from the United States.

Comment.

The Secretary of War has made arrangements with the Secretary of Agriculture, at the request of the Isthmian Canal Commission, to have all groceries and provisions and other food stuffs, inspected before shipment from the United States, so as to insure compliance with specifications and prevent the shipment of adulterated food supplies.

Criticism.

There is no adequate supply of fresh vegetables on the Isthmus.

Comment.

A contract was closed early in September for an additional supply of two hundred tons of fresh vegetables to be brought to Colon every two weeks from New York by the ships of the Royal Mail line.

Criticism.

An inspection of the goods at the main Commissary revealed a lack of such shoes, overalls and other goods as would be desired by American workmen. There are no goods or garments whatever for women and children.

Comment.

This criticism is in the main true, but steps have been taken to remedy the defects complained of. A standard $3 men's shoe has been adopted, of various sizes and shapes, colors of leather, etc., and a line of ladies' goods, ladies' shoes, and other similar articles has been secured. By the 1st of December it is thought that the Commissary will be so well stocked that a man or woman may purchase what she or he may need in wearing apparel or toilet articles.

Criticism.

There should be tailoring establishments connected with the Commissaries, not only for men but also for women, where ordinary dressmaking and garment-making could be carried on.

Comment.

A plan is already under consideration for supplying these needs.

Criticism.

The local commissaries are not always as clean as they should be.

Comment.

This was a true criticism at the time it was made. Every commissary on the line is now in charge of a dependable white man, and is kept thoroughly clean.

Criticism.

There is a complaint that meats are not always received in good condition, and that they are left in the sun after being taken from the refrigerator cars.

Comment.

At present meats are all packed in cold storage plants, placed in baskets with covers on them, and the packages are not again touched until they are delivered to the quarters of families. All meats for hotels and mess halls are wrapped in burlap and well fastened before leaving cold storage and are delivered in as good condition along the line as similar goods are delivered in any city of the United States.

Criticism.

There should be cold storage plants at the large camps and meats for both families and mess halls distributed as from butcher shops.

Comment.

There are already three such plants in operation, and early in October it is expected that there will be a cooling room in every commissary on the line.

Criticism.

In April the profits of the Commissary Department, including ice plant, bakery and laundry, were $52,000.

Comment.

During the month of July the Commissary and kindred branches were operated at a loss of about $500, the profits hitherto made having been devoted to furnishing goods at cheaper prices.

Criticism.

There should be separate counters for negroes and whites in the Commissaries. Blacks and whites should not be required to mix in making purchases.

Comment.

A plan is under consideration by which the Commissaries can be so arranged that silver employes may purchase at separate times from the gold employes. It is proposed to have the gold employes and their wives make purchases during certain hours, and the silver employes during others.

Criticism.

The toilet arrangements at the main Commissary, both for men and women, are abominable.

Comment.

These conditions no longer exist. New toilet rooms were completed some weeks ago.

Criticism.

The two laundries at Colon and Ancon are wretchedly managed. Clothes are constantly lost, torn, and frequently returned so yellow as to be unfit for wear.

Comment.

The Colon laundry is now well reorganized and is giving efficient, prompt, and satisfactory service. The service at the Ancon laundry has also been greatly improved, the difficulty heretofore has been in securing satisfactory help, but this is gradually being overcome.

Criticism.

Mosquito netting is given free to the whites and is not furnished to the blacks. Other openings are screened, but the doors of the barracks of negroes are not.

Comment.

Those living in quarters with beds on which mosquito bars can be used are furnished with them, but the blacks and whites alike, who sleep in Standee bunks, are not furnished bars because from the construction of the bunks it is found impracticable to use them. The barracks of the blacks and whites are screened in. For a time batten doors were used in the quarters of laborers by reason of the fact that it was found difficult to keep the netting in the doors from being torn. This has been discontinued and return made to the screen door, the screen being protected by heavy wire.

Criticism.

In one circular issued three grains of quinine daily are recommended to maintain health, while in another not quoted herein, it was perplexing to find a daily dose of six grains urged.

Comment.

The Chief Sanitary Officer says: "I am unable to find the circular referred to in which six grains of quinine is recommended as a daily dose, but I would be very glad to get the laborer to take six grains if he would. However, I recommend three grains as the more practicable dose for the largest number of men."

Criticism.

In clearing away the jungle the machette and shears are used. Only one mowing machine was observed. No scythes are used, because the native laborers prefer machettes.

Comment.

There are twenty mowing machines in use in this work and a large number of scythes. There was some difficulty in getting the laborer to use the scythe, but he is being gradually trained to do so.

Criticism.

There should be stretchers and emergency boxes in convenient places where excavation is going on, as well as in the shops, for the benefit of injured laborers.

Comment.

Dispensaries are located at short intervals all along the line and are readily accessible from all parts of the work. There has been no complaint made as to delay in attending the wounded and sick.

Criticism.

There should be constructed rain sheds along the Canal where excavation work is in progress, in which employes could keep coats and to which they could retire during heavy showers. There are some small sheds on one division, although not enough.

Comment.

On account of the constantly shifting location of the work it would be an endless and and expensive procedure to build rain sheds for the protection of workmen and would mean covering practically the whole line of the Canal with these sheds. There are no funds that could be made available for this work at present, even if it should be considered advisable to do so.

Criticism.

Circular saws should be guarded.

Comment.

Small circular saws in all the shops on the Isthmus are guarded; the larger ones it is not customary to guard. As a matter of fact they are situated in the middle of a large table, which in itself serves as a guard to the saw, and there is no possibility of the operator being injured, if he uses reasonable care.

Criticism.

European laborers have been deceived by alluring statements with reference to housing, recreation, and other matters. Promises have been made in the States that a man would be able to get married quarters within sixty days, and verbal promises have been made of rapid promotion.

Comment.

If representations and promises of this kind have been made, they have been given absolutely without authority, for nothing of the kind appears in any of the official circulars of the Commission.

Commissary Prices.

For the information of purchasers from the Commissaries, the following are the percentages added to the invoice cost of goods purchased. These percentages cover all transportation and purchasing expenses, expenses from breakages, and loss and decay, or any cause:

Groceries and cold-storage products of all description, 20 per cent.

Dry goods, shoes and notions, 25 per cent.

Furniture and articles analogous to this class of goods, 40 per cent.

Glassware, earthenware and hollowware, 40 per cent.

Hardware, 33⅓ per cent.

It will be observed that it is necessary to add a larger percentage to articles of glassware, earthenware and hollowware on account of breakages and increased freight rate, the same applies to furniture, it being necessary to pay a high freight rate on these goods.

The Commissary Department adds only a percentage sufficient to cover the actual operating expenses; and, for articles manufactured, it adds only sufficient to cover the cost of manufacture and the amount necessary to pay for the maintenance and cost of plant.

For week ending Oct. 10:

FRESH MEATS.		Price. cts.
Beef, sirloin, roast	*per lb...*	22
Beef, rump, roast	*do*	22
Beef, porterhouse	*do*	22
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	17
Beef, rib-roast, second-cut	*do*	15
Beef, chuck-roast	*do*	12
Beef, soup	*do*	7
Beef, stew	*do*	10
Beef, corned	*do*	10, 12, 14
Beef, corned, sirloin butts, all lean	*do*	16
Beef, corned, fancy boneless brisket	*do*	18
Steaks, sirloin	*do*	22
Steaks, Porterhouse	*do*	22
Steaks, rump	*do*	22
Steaks, tenderloin	*do*	22
Steaks, round	*do*	12½
Veal, cutlets	*do*	21
Veal, short-cut chops	*do*	20
Veal, loin	*do*	12
Veal, entire forequarters	*do*	9
Veal, for stewing	*do*	8
Mutton, entire forequarters.	*do*	10
Mutton, short-cut chops	*do*	19
Mutton, leg	*do*	17
Lamb, for stewing	*do*	11
Lamb, entire forequarters	*do*	11
Lamb, short-cut chops	*do*	27
Lamb, legs	*do*	24
Pork, chops	*do*	20
MISCELLANEOUS.		
Livers, beef	*per lb...*	9
Livers, calf	*apiece...*	50
Sausage, pork	*per lb...*	16
Sausage, Frankfurt	*per lb*	17
Sweet Breads, veal	*do*	$1.20
Sweet Breads, beef	*do*	25
Sausage, Bologna	*do*	13½
Oysters, ½-gallon kegs	*each...*	70
POULTRY AND GAME.		
Chickens, dressed (milk-fed).	*each...$*	1.25
Fowls	*do*	*85
Ducklings	*do*	1.25
Turkeys	*per lb...*	26½
Broilers, frys (chicken)	*each...*	80
Squabs	*do*	35
Ducks (fatted)	*do*	1.45
Eggs, fresh	*per dozen*	†34
CURED MEATS AND LARD.		
Bacon, strips per lb.	*per lb...*	23
Bacon, English breakfast, slic'd	*do*	§26
Ham, sugar-cured, sliced	*do*	§25
Ham, one-half (for boiling)	*do*	§20
Ham, Yorkshire (imported).	*do*	25
Lard, 5.lb. tins	*each..*	65
Lard, 10-lb. tins	*do*	1.30
Lard, 25-lb. tins	*per lb...*	12½
DAIRY PRODUCTS.		
Butter, prints, prime quality.	*per lb...*	†35
Cheese, cream	*each...*	22
Cheese, Neufchatel	*do*	6
Cheese, Camembert	*do*	28
Cheese, Roquefort.	*per lb...*	45
Cheese, Young America	*do*	22
Cheese, Swiss	*per lb...*	30
Cheese, Gouda	*do*	30
Cheese, Cheddar loaf	*do*	32
Cheese, Edam	*each...*	90
FRUITS AND VEGETABLES.		
Oranges	*per dozen*	12
Apples	*per lb...*	*8
Limes	*per hundred*	30
Bananas	*per dozen.*	5
Peaches	*per lb...*	*13
Grapes	*do*	*8½
Pears	*do*	12
Grape Fruit	*each...*	3
Celery	*per bunch*	18
Cucumbers	*per lb...*	†10
White potatoes	*do*	3
Cabbage	*do*	3
Lettuce	*do*	†12
Onions	*do*	*2
Cauliflowers	*do*	8½
Tomatoes	*do*	5
Yams	*do*	2½

** Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries.

NOTICE OF PRICE CHANGES.

		Old Price. cts.	New Price. cts.
Milk, sterilized, Fussel's, Green Butterfly	*tin..*	9	8½

Misdirected Letters.

The following insufficiently addressed letters originating in the United States and its possessions, have been received in the office of the Director of Posts, Ancon, C. Z., and may be secured on request of addressee:

Anderson, Martin

Bork, Fred A.
Boo, Ed

Campbell, W. S.
Conn, Wm.
Carr, Chas., Time Insp.
Cooper, Gilbert

Daly, James
Douglas, G.

Fek, John
Erdman, Roger

Ferguson, Howard
Feterly, A.
Fletcher, Edwin
Fouche, Ernest

Gilmore, John E.
Green, W. B.

Hickman, John H.
Hill, Mrs. A. E.
Hinman, Herbert D
Hou ton, Mrs Dai ey
Houston, J. F.
Houston, R. S.

Irish, Edward

Jecker, Desaix
Jimenez, Carlos R.

Kennedy, Arclive
Kenney, Daniel F.

Levy, Edwin, c/o E. W. Levy
Leonard, H.
Leonard, Mary J.
Lingo, Chas. K.

McKay, Robt.
Marx, LeRoy
Maxwell, Mr. Time-keeper
Mead, C. H.
Mills, C. E., Y. M. C. A.
Munchow, Mrs. E. N. von
Munster, Thos. G.

Nelson, Dr. R. M.

Parsons, Clarence
Porter, R. A.

Richards, Ida Miss
Robarns, Hyiar D.

St. Clair, Mr. (cont'r for Cement Works)
Scott, Arthur
Shaw, H. A.
Sterquel, Geo. W.
Sutton, N. V.
Sutton, Mrs M. E.

Tucker, Herman F.

W r l, Rupert P.
Wells, Geo. M.
Westcott, Harry
Wilson, Chas., c/o West Indian House
Wright, L. E. jr.

Ye dey, Jas. G
Youman, Frank E.

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.

Maj. D. D. Gaillard, U. S. A., Culebra.

Maj. Wm. L. Sibert, U. S. A., Culebra.

Mr. H. H. Rousseau, U. S. N., Culebra.

Mr. J. C. S. Blackburn, Ancon.

Col. W. C. Gorgas, U. S. A., Ancon.

Mr. Jackson Smith, Culebra.

Mr. Joseph Bucklin Bishop, Secretary, Ancon.

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Wm. Howard May, Secretary.

M. K. DePutron, chief clerk.

A. B. Nichols, Office Engineer.

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Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.

C. A. McIlvaine, chief clerk.

D. W. Bolich, Division Engineer, Empire.

S. J. Kennedy, chief clerk.

Louis K. Rourke, Assistant Division Engineer, Empire.

Wm. Gerig, Division Engineer, Gatun.

Mrs. C. L. MacPherson, chief clerk.

W. G. Comber, Division Engineer, La Boca.

David V. Stratton, chief clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.

R. M. Sands, chief clerk.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.

E. P. Thompson, chief clerk.

Wm. Gerig, Division Engineer, Cristobal.

Mrs. C. L. MacPherson, chief clerk.

Sydney B. Williamson, Division Engineer, La Boca.

E. A. LeMay, chief clerk.

W. G. Comber, Division Engineer, La Boca.

David V. Stratton, chief clerk.

Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.

Henry Goldmark, David Moliter, Structural Work Design.

L. D. Cornish, H. T. Tucker, Masonry Design, Culebra.

R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.

D. W. MacCormack, chief clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: H. H. Rousseau, U. S. N. Culebra.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.

E. C. McFarland, chief clerk.

George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.

F. W. Doty, chief clerk.

Earl J. Banta, Mechanical Engineer.

A. L. Robinson, Electrical Engineer.

W. M. Belding, Master Builder (Division of Building Construction), Culebra.

P. O. Wright, jr., Architect, Culebra.

J. H. Barbour, chief clerk.

Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.

Max Dyer, chief clerk, Cristobal.

W. C. Haskins, chief clerk, Ancon.

Wm. Krugel, Stationer and Printer, Ancon.

Division of Map Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

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Hon. Jo C. S. Blackburn, Head of the Department, Ancon.

H. D. Reed, Executive Secretary, Ancon.

J. K. Baxter, chief clerk, Ancon.

Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.

E. Lewis Baker, Deputy Collector, Cristobal.

Herman A. Gudger, Deputy Collector, Ancon.

George R. Shanton, Chief of Police, Ancon.

D. E. McDonald, chief clerk.

C. E. Weidman, Chief, Fire Department, Cristobal.

E. H. Hale, chief clerk.

Geo. L. Campen, Water Commissioner, Ancon.

Inocencio Galindo, legal adviser, Ancon.

David C. O'Connor, Superintendent of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court, Dr. F. Mutis Durán, Chief Justice, Ancon.

H. A. Gudger, Associate Justice, Empire.

Lorin C. Collins, Associate Justice, Cristobal.

Walter Emery, clerk of court, Ancon.

Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.

Walter Emery, Circuit Court clerk, Ancon.

Circuit Court, Second circuit: H. A. Gudger, Judge, Empire.

Elbert M. Goolsby, Circuit Court clerk, Empire.

Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.

Nelson R. Johnson, Circuit Court clerk, Cristobal.

Prosecuting Attorney: George M. Shontz, Ancon.

Acting Prosecuting Attorney: Thomas E. Brown, Jr., Ancon.

Translators: F. H. Sheibley and Charles M. Brown.

M. C. Rerdell, Senior District Judge, Culebra.

Thomas E. Brown, jr., District Judge, Cristobal.

J. M. Fernandez, District Judge, La Boca.

R. B. Myers, District Judge, Empire.

R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.

Maj C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.

Harry C. Bovay, chief clerk.

H. R. Carter, Director of Hospitals, Ancon.

Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.

Maj. John. L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.

J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.

Capt. Robert E. Noble, U. S. A., General Inspector, Ancon.

Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.

Dr. John H. Purnell, Health Officer, Panama.

Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.

R. E. Wood, Assistant Manager, Culebra.

S. C. Klauber, chief clerk.

J. M. Maguire, Ancon; C. C. McColley, Empire; C. L. Parker, Gorgona, Edgar Lowe, Cristobal, division superintendents.

Panama Railroad Company.

H. J. Slifer, assistant to the President and General Manager, Colon.

W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.

W. F. Shipley, Sales Manager, Cristobal.

S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.

W. M. Wood, chief clerk.

Examiner of Accounts.

H. L. Stantz, Empire.

W. D. Mabry, chief clerk.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Venetia	*H.-A.*	*Saturday*	*Oct. 12*
Panama	*P.RR.*	*Tuesday*	*Oct. 15*
Prinz Sigismund	*H.-A.*	*Saturday*	*Oct. 19*
La Plata	*R.M.*	*Saturday*	*Oct. 19*
Dunottar Castle	*P.RR.*	*Monday*	*Oct. 21*
Advance	*P.RR.*	*Friday*	*Oct. 25*
Altai	*H.-A.*	*Saturday*	*Oct. 26*
Colon	*P.RR.*	*Thursday*	*Oct. 31*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov. 2*
Tagus	*R.M.*	*Saturday*	*Nov. 2*
Finance	*P.RR.*	*Wednesday*	*Nov. 6*
Venetia	*H.-A.*	*Saturday*	*Nov. 9*
Panama	*P.RR.*	*Monday*	*Nov. 11*
Prinz Sigismund	*H.-A.*	*Saturday*	*Nov. 16*
Orinoco	*R.M.*	*Saturday*	*Nov. 16*
Dunottar Castle	*P.RR.*	*Monday*	*Nov. 18*
Advance	*P.RR.*	*Friday*	*Nov. 22*
Altai	*H.-A.*	*Saturday*	*Nov. 23*
Colon	*P.RR.*	*Wednesday*	*Nov. 27*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov. 30*
Atrato	*R.M.*	*Saturday*	*Nov. 30*
Finance	*P.RR.*	*Monday*	*Dec. 2*
Venetia	*H.-A.*	*Saturday*	*Dec. 7*
Panama	*P.RR.*	*Monday*	*Dec. 9*
Dunottar Castle	*P.RR.*	*Saturday*	*Dec. 14*
Prinz Sigismund	*H.-A.*	*Saturday*	*Dec. 14*
Trent	*R.M.*	*Saturday*	*Dec. 14*
Advance	*P.RR.*	*Thursday*	*Dec. 19*
Altai	*H.-A.*	*Saturday*	*Dec. 21*
Colon	*P.RR.*	*Tuesday*	*Dec. 24*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec. 28*
La Plata	*R.M.*	*Saturday*	*Dec. 28*
Finance	*P.RR.*	*Monday*	*Dec. 30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Altai	*H.-A.*	*Saturday*	*Oct. 12*
Colon	*P.RR.*	*Thursday*	*Oct. 17*
Finance	*P.RR.*	*Tuesday*	*Oct. 22*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Oct. 22*
Tagus	*R.M.*	*Wednesday*	*Oct. 23*
Venetia	*H.-A.*	*Saturday*	*Oct. 26*
Panama	*P.RR.*	*Monday*	*Oct. 28*
Dunottar Castle	*P.RR.*	*Saturday*	*Nov. 2*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Nov. 5*
Orinoco	*R.M.*	*Wednesday*	*Nov. 6*
Advance	*P.RR.*	*Thursday*	*Nov. 7*
Altai	*H.-A.*	*Saturday*	*Nov. 9*
Colon	*P.RR.*	*Wednesday*	*Nov. 13*
Finance	*P.RR.*	*Monday*	*Nov. 18*
Prinz Eitel Freidrich	*H.-A.*	*Tuesday*	*Nov. 19*
Atrato	*R.M.*	*Wednesday*	*Nov. 20*
Venetia	*H.-A.*	*Saturday*	*Nov. 23*
Panama	*P.RR.*	*Sunday*	*Nov. 24*
Dunottar Castle	*P.RR.*	*Friday*	*Nov. 29*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec. 3*
Advance	*P.RR.*	*Wednesday*	*Dec. 4*
Trent	*R.M.*	*Wednesday*	*Dec. 4*
Altai	*H.-A.*	*Saturday*	*Dec. 7*
Colon	*P.RR.*	*Tuesday*	*Dec. 10*
Finance	*P.RR*	*Sunday*	*Dec. 15*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Dec. 17*
La Plata	*R.M.*	*Wednesday*	*Dec. 18*
Panama	*P.RR.*	*Saturday*	*Dec. 21*
Venetia	*H.-A.*	*Saturday*	*Dec. 21*
Dunottar Castle	*P.RR.*	*Thursday*	*Dec. 26*
Advance	*PRR.*	*Tuesday*	*Dec. 31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec. 31*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Trent	*R.M.*	*Tuesday*	*Oct. 15*
La Plata	*R.M.*	*Tuesday*	*Oct. 29*
Tagus	*R.M.*	*Tuesday*	*Nov. 12*
Orinoco	*R.M.*	*Tuesday*	*Nov. 26*
Atrato	*R.M.*	*Tuesday*	*Dec. 10*
Trent	*R.M.*	*Tuesday*	*Dec. 24*

All Royal Mail steamers mentioned above and the *Prinz Eitel Friedrich* and *Prinz Sigismund* call at Kingston enroute to New York.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 23d of each month.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, OCTOBER 23, 1907. No. 8.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

The Cucaracha Slide.

During the past week the work of removing the material cast into Culebra Cut by the Cucaracha slide has continued with undiminished energy. Electric arc lights have been erected at the slide, and the work has been carried forward day and night with three steam shovels. The effect of this has been to gain slowly but gradually on the slide, and it is hoped that within ten days or two weeks the movement of material trains through the Cut will be resumed on the old schedule. This gain has been achieved in spite of the fact that during the last twenty days the rainfall has been the heaviest of the year.

Chairman's Monthly Report.

The report of the Chairman of the Isthmian Canal Commission for September is published in full in other columns of this issue of THE CANAL RECORD. It gives specific information as to the progress of Canal construction in all divisions of the work, together with official figures of excavation, dredging, railway construction, trestle building, etc. It shows that during the month there were brought to the Isthmus 783 laborers, of whom 664 were Europeans and 119 West Indians. There were employed in the United States 204 gold men, and on the Isthmus 146. At the end of the month there were working for the Commission 4,638 men on the gold rolls and 18,969 on the silver rolls, a total force of 23,607. The Panama railroad force numbered 6,238, making the total working force of the Commission and railroad 29,845.

The subsistence operations of the month showed a loss of $2,423.40, due to the fact that there were only 30 days in September, including five Sundays and one holiday. The pay roll and expenses of the mess houses were about as usual, but the revenue fell off appreciably. Receipts approximate $5,000 a day, and the loss of receipts for one or two days is sufficient to turn the balance sheet from a profit to a loss. It is believed that the operations for October will show a profit that will more than offset the September loss.

The postal money order sales for September amounted to $332,287.95, an increase of $20,208.95 over those for August. The collections to be turned into the Zone treasury by the Revenue Department aggregated $5,628.23, an increase of $564.92 over those for August. The average daily consumption of water in Panama during September was 731,300 gallons, and in Colon 292,567 gallons.

Coal Consumption on the Isthmus.

The consumption of coal on the Isthmus amounts to 30,000 tons a month, or 1,000 tons per calendar day. Of this amount 4,000 tons are used by the Panama railroad, 12,000 tons by the Transportation Department of the Isthmian Canal Commission, 8,000 tons by the Mechanical Department of the Commission, 4,000 tons are supplied to the various steamship lines at La Boca, and 2,000 tons are used for miscellaneous purposes.

The coal situation the latter part of September assumed a very serious aspect, as the reserve was exhausted and there was difficulty in having the transports recognized at the United States terminals. It is hoped, however, that the crisis is past, and efforts are being made to secure a requisite number of colliers to make good the existing shortage in the reserve supply. The colliers *Alnmere* with 5,000 tons, and *Mistor* with 4,700 tons are unloading at Cristobal. The *Cunaxa*, *Vortigern*, *Sangstad* and *Ran* are reported as en route with 18,300 tons.

Because of the shutting down of the mines between December 20 and January 12, the reserve supply must be sufficiently great, if the prosecution of the work is not to be interfered with, to tide over this interval.

The torpedo flotilla, comprising six United States torpedo boats, that is to accompany the fleet from the Atlantic to the Pacific coast, will take about 1,000 tons of coal at LaBoca when it arrives there some months hence.

Gold Commissary at Cristobal.

A commissary for the exclusive use of gold employes is to be opened at Cristobal about December 1, in time for the holiday trade. It will deal entirely in men's furnishing goods and clothing, and articles for ladies, wearing apparel, shoes, etc. There will be a waiting room for ladies from the Line, in which they will be made comfortable until the departure of trains.

Watershed Inspection.

A thorough inspection of the Camacho and Rio Grande watersheds has been completed by the Police Department and all human inhabitants have been removed therefrom with the exception of a single family of natives who have inherited rights of property, they and their ancestors having been living there for many years. Negotiations are in progress with this family for their removal which is likely to be accomplished soon, and then both watersheds will be entirely free of human habitation. Several families of "squatters," who had no property rights, have been removed from the stream between the Camacho dam and Empire. In future monthly inspection of the watersheds will be made and they will be kept clean of human habitation in order that all danger of contamination of the water supply may be averted.

Highest Steam Shovel Record.

The Division Engineer at Gatun reports that the maximum day's output for the period October 12th to 18th, inclusive, for steam shovels in the lock site at Gatun was on the 18th, on which date five steam shovels excavated 5,472 cubic yards, an average of 1,094 cubic yards per shovel.

Shovel No. 107 led with 1,600 cubic yards; Shovel No. 102 was second with 1,152; Shovel No. 117 was third with 1,056; Shovel No. 120 was fourth with 1,024; and Shovel No. 104 which was hampered by a narrow place in which to work, was fifth with 640. The highest daily record hitherto attained was that of Shovel No. 114 at Gatun, 858 cubic yards, on October 2. Consequently the four shovels first named each broke the record.

Fire Possibilities in Palm Trees.

THE CANAL RECORD:

An article in No. 7 of THE CANAL RECORD, entitled "Fire Possibilities in Palm Trees," points to the destruction of a palm at Tabernilla through lightning, which set the oil in the tree on fire and created a strong enough blaze to endanger a nearby building. The article also states that other palms in the vicinity of buildings should be cut down as a matter of precaution, but to save any of these from being destroyed unnecessarily, I wish to state that there are only two tall growing species of palms in the Zone settlements which contain a notable amount of oil, viz.: the "Attalea cohune," to which the article refers, and the Cocoanut palm. The presence of these around buildings should, however, be considered more beneficial than harmful as they will invariably protect houses from being struck through attracting the lightning upon themselves. HENRY F. SCHULTZ,
Horticulturist.

Ancon, C. Z., Oct. 18.

ZONE PUBLIC SCHOOLS

Outline of the Work for the Year.

The Canal Zone free public schools reopened after the summer vacation on October 1.

Schools for white children are established at La Boca, Ancon, Pedro Miguel, Paraiso, Culebra, Empire, Las Cascadas, Bas Obispo, Gorgona, Gatun and Cristobal. A school will also be opened within a few weeks on the beach near the hospital at Colon, for the benefit of the children of employes of the Panama Railroad Company quartered in that vicinity.

Schools for colored children have been opened at La Boca, Las Sabanas, Paraiso, Culebra, Empire, Cruces, Matachin, Gorgona, Tabernilla, Bohio, Gatun, Cristobal and Playa de Flor. It is intended to open others at Pedro Miguel, Las Cascadas, San Pablo, Bas Obispo, Frijoles and Majagual.

In the schools for white children 299 pupils have been enrolled, while 638 pupils have been enrolled in the schools for colored children.

The teachers for the white schools have been very carefully selected from the numerous applicants for appointment; preference being given to those with normal school training and previous experience in the United States. All but four of the eighteen teachers employed for the white schools have had such experience. The colored schools will be in charge of the most competent native and West Indian teachers that it is possible to attract to the service. The delay in opening some of the colored schools has been due to the difficulty experienced in securing properly qualified colored teachers.

The schools are divided into eight grades in conformity with the similar organization of elementary schools in the United States. The curriculum includes reading, writing, spelling, grammar, geography, elementary physiology and free-hand drawing. In addition to the instruction in these subjects, English-speaking children are taught Spanish and Spanish-speaking children are taught English. For American children who are too far advanced for the elementary grades, high school classes will be organized at Culebra and Cristobal, in which instruction will be given in algebra, geometry, Latin, Spanish, botany, physical geography, general history, rhetoric and biology.

Children of parents who are not employed by the Isthmian Canal Commission or the Panama Railroad Company and are not residents of the Canal Zone, will be admitted to the elementary grades wherever local conditions will permit, upon payment of a tuition fee of $2 (gold) a month, and to the high school grades upon payment of $4 (gold) a month.

All necessary material, including books, pencils, pens and paper, are furnished to the children free of charge. No expense can be incurred by children of the Canal Zone attending the schools, except a nominal charge for the mutilation or loss of books or other property resulting from the pupil's carelessness or negligence.

It is the aim of the Division of Schools to provide for the children of American parents instruction similar to that which they would receive in the public schools of the United States, in order that they may not be handicapped by reason of their temporary residence on the Isthmus, and to provide for native children and children of the Commission's West Indian laborers such schooling as they might obtain in the Republic of Panama or in their native islands.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

CRISTOBAL.

Black and orange has been chosen as the Y. M. C. A. colors. The gymnasium committee has asked that all members of the bowling, basket-ball, and other athletic teams provide themselves with Spalding's sleeveless shirts made in black, with 4-inch orange stripe across the chest.

The library recently installed is being very generously patronized, and meets a long-felt want, not only for good fiction, but for reference books and standard technical works as well. Mr. Harry Orenstein is in charge and is classifying the books according to the system in vogue in the large public libraries in the States. Additional books are being added through the generosity of members and friends.

Equipment has been received for the mechanical drawing classes, and Mr. Maurice Fox, of Gatun, secured as instructor. The class will open about the first of November.

On next Thursday night there will be held an indoor track meet under the direction of Mr. Geo. H. Old, chairman of the athletic committee. The program will consist of high running jump, running broad jump, pole vault, potato relay race, high dive, etc., closing with an exhibition game of basket-ball.

Messrs. Hugh T. Kinney and E. E. Talley have been asked to organize and direct the indoor baseball work, which is being introduced for the first time

Equipment has been added during the week for volley ball; likewise ten professional bowling balls and sixty new pins have been placed at the disposal of the bowlers.

H. Holton and L. L. Womack are this week's winners in the billiard tournament; Dr. Harry Eno and P. B. Greegor in pool.

GORGONA.

Mr Louis F. La Rose, late physical director of the Newton (Mass.) Association, is expected to arrive Oct. 21. Mr. La Rose will be the new assistant secretary, giving special attention to gymnastics, athletics, basket-ball, bowling and billiard tournaments.

A reception will be given Mr. La Rose on Wednesday, Oct. 23, to which the entire membership is invited. The gymnasium and track men have organized a unique program for the occasion.

The following additional privileges are expected to be installed within the next thirty days:

A well-equipped barber shop, with an experienced professional barber, and a shoe-shining stand.

One first-class additional pool table from the old Cristobal club.

Cigar show-case and cigars.

Six-hundred volume library (fiction now ready); deposit system used.

New outfit of chandeliers throughout the house, with 50-c p. lamps attached.

Ten new official bowling balls.

Complete set of indoor baseball equipment, an official volley ball, volley net, and one dozen new foil masks have already been received.

The second series of the local bowling league games has been organized. It consists of six teams of three men each; teams are to bowl two games each night; total pin-fall of the two games to count as one game; the team winning the highest number of games is winner of a challenge cup; if a tie, the team with the highest average pin-fall wins. Captains of these teams are as follows: No. 1, Geo. J. Loughery; No. 2, H. Collins; No. 3, Adolph Getman; No. 4, Jessie C. Hiser; No. 5, J. McRorie; No. 6, H. Daly. Mr. C. L. Van den Henrk is manager.

The Travel Talk about India by Mr G. Chauncey Ferris last Thursday evening was interesting and well attended. Mr. Wm. Hearne, of Cristobal, gave the third number of "Travel Talks" under the subject of "Experiences in the Jamaica Earthquake," illustrated with stereopticon

The Gorgona Dancing Club held a dance in the hall on Saturday, Oct 19, to which every member of the Association was invited. The dance was a success in every respect. The Gorgona orchestra furnished the music.

Mr. William Baxley, secretary of the Culebra Association, will give the address on Sunday, Oct. 27

Mr. Joseph Francis Norton, of Cristobal, will give the last number of October "Travel Talks" on Wednesday, Oct 29.

The Gorgona Woman's Club will give "The Districk Skule" on Hallowe'en, Oct. 31.

EMPIRE.

A class in mechanical drawing has been organized with twelve members under the direction of Mr. W. O. Johnson, master mechanic, Empire shops.

The illustrated lecture on Ireland and the moving-picture show, that was given last Tuesday night by Messrs. Kaiser and Fippe, of Milwaukee, Wis., was a great success.

The Empire representatives at the Sunday Club conference, held at Gorgona last Sunday, Messrs. E. P. Beck, R. Rainwater, M. P. Pitts, C. H. Anderson, Chas. Schlager, C. W. K. Newbold, Henry Beckly, Herbert Pearson and J. L. Woodford

The patronage that the barber shop is receiving makes sure that this is a permanent feature of the Y. M. C. A. at Empire.

CULEBRA.

The stereopticon and moving-picture entertainment, given by Messrs. Kaiser and Fippe on Wednesday evening, October 16, was thoroughly enjoyed, and many requests have come from the members for their second appearance.

The orchestra from the steamship *Prinz Eitel Friedrich* gave a concert in the entertainment hall on Sunday afternoon, Oct. 20, at 2.30 o'clock

The program for the immediate future includes: Wednesday, Oct. 23, at 8.15 p. m., "Roberson and His moving pictures"; Friday, Oct 25, at 8.15 p. m., lecture by Mason E. Mitchell; subject, "Experiences on Robinson Crusoe Island"; Sunday, Oct. 27, at 2.15 p. m., concert by the I. C. C. band; Sunday, Oct. 27, at 3.45 p. m., address to men and women.

Christain Science Services.

THE CANAL RECORD:

Christian Science services are held in the building provided by the Canal Commission for church services at Gorgona each Sunday morning at 8:15. All persons are cordially invited to be present.

WM. M. WOOD.

Empire, C. Z., October 16.

Pioneer Club.

THE CANAL RECORD:

A pioneer club to be known as "The Isthmian Canal Pioneer Association," has been formed with 25 charter members. American citizens, who arrived on the Zone in May or June, 1904, as employes of the Canal Commission, are requested to send their names to the Committee.

AUSTIN C. HARPER, Ancon,
WILLIAM C. GORGAS, Ancon,
CLAUDE C. PIERCE, Cristobal,
CHARLES L. CARPENTER, Gatun,
MASON E. MITCHELL, Panama,
Committee on Organization.

Ancon, C. Z., Oct. 17.

ISTHMIAN CEMENT MATERIAL

Report of Ernest Howe, Geologist, of the United States Geological Survey.

In July and August, 1906, at the time of my first visit to the Isthmus, I was directed by the Chief Engineer to make a careful search for raw material suitable for use in the manufacture of a high grade of Portland cement. Some months before samples of a supposed cement rock had been sent to the laboratory of the Geological Survey by the Commission for analysis, but the material proved to be of no value.

The lime stones that occur sparingly in the Zone in the vicinity of Empire are invariable in composition and limited in extent, while those exposed in the canyon of the Chagres river above Alhajuela, even if sufficiently pure, are too remote to be used economically.

Clay is one of the commonest substances in the whole Isthmian region, but its physical condition is extremely variable, notwithstanding the fact that its chemical composition is very uniform. Certain of the shales occurring in the various sedimentary formations in the vicinity of Culebra and also on the Atlantic coast might be used, but the difficulty of obtaining them in large quantities and of uniform quality and at points near the coral rock are serious objections.

After some study of the different kinds of argillaceous and calcareous rocks or deposits on the Isthmus, considering both their chemical and physical composition and accessibility, three classes of materials were decided upon as probably suitable for use. For the calcareous cement coral, from the reefs bordering the whole Caribbean coast, and occurring in great abundance in the immediate vicinity of Colon, was decided upon.

The recent clays and silts brought down by the Chagres river and deposited near its mouth, or in the French canal emptying into Limon bay, are extremely uniform both in texture and in chemical composition. It was feared, however, at the time samples were collected, that the percentage of silica contained in the clays might be too low, so that samples were also taken of the pumiceous rhyolite tuffs occurring at the western end of the Panama railroad bridge near San Pablo.

A sample of the coral rock from Limon bay, three samples of mud taken from different points in the French canal between the dry dock at Mount Hope and the mouth of the Rio Mindi, and also a sample of the rhyolite tuffs from San Pablo were analyzed in the chemical laboratory of the United States Geological Survey. The results of these analyses showed that the coral is a remarkably pure lime carbonate. The muds, although thought to be rather low in silica, contain a relatively large amount of iron as compared with alumina, and for this reason it was believed that they might make a cement capable of resisting the decomposing effects of sea water. The composition of the rhyolite tuff is so near the average composition of the argillaceous materials used in the Lehigh district that, at the time, it was believed this in combination with the coral would make the better grade of cement. In any case the analyses were sufficiently promising to warrant actual burning tests, and so 600 pounds of the coral rock, and 100 pounds each of the mud and the rhyolite tuff were shipped at my request with the approval of the Chief Engineer from the Isthmus to the Lehigh Valley testing laboratory at Allentown, Pa. Three separate burnings were made. In the first burning the mixture was coral rock and clay, in the second, coral and rhyolite tuff, while the third burning, made some six weeks after the first two, was of equal parts of clay and tuff combined with the coral as a base.

All the pats for each cement were reported sound and hard on the completion of the tests, but after a month or six weeks some became detached from the glass. The pats were made from freshly burned clinker, ground as soon as cold, and without the addition of plaster. A very good showing for a laboratory test.

SETTING TIME. 2 PER CENT PLASTER ADDED.

	Initial Set.	Final Set.
Coral-clay cement....	1 hr. 45 min...	5 hr. 25 min.
Coral-tuff cement.....	1 hr. 27 min...	6 hr. 47 min.
Coral-clay-tuff cement......................	2 hrs.	5 hr. 20 min.

Although there are certain differences in the chemical composition of the two kinds of argillaceous materials, the results of the tests are remarkably uniform, and might well have been of three separate burnings of the same materials, and all three are entirely satisfactory.

Considering the reports as a whole it may be said that the materials tested are suitable for the manufacture of the highest grade of Portland cement, and according to the manager of the testing laboratory, make a better showing than the average standard brands from the Lehigh district tested at the same laboratory.

PHYSICAL CHARACTER OF THE RAW MATERIALS.

Coral—The coral rock is of very moderate hardness and may be easily obtained either by dredging or surface excavation of reefs bordering the coast. It may be crushed with little difficulty and would require no drying.

Clay—The clay or mud from the Chagres or the French canal may be easily and cheaply dredged. Its uniformity of composition is undoubted, and the only serious expense connected with the use of this material would be in the drying. It is possible that a wet process might be found, in this case, more economical than the generally used dry process.

Tuff—The rhyolite tuff is soft and easily quarried and crushed. Its location near the Panama railroad is an advantage in the matter of shipment, but the distance (about 20 miles) from the point where the coral could be profitably delivered would be the most serious objection to the use of this material.

AMOUNT OF RAW MATERIAL AVAILABLE.

Taking 5,000,000 barrels as the total amount required, this would call for about 1,500,000 tons of raw materials, of which 1,125,000 tons would be of the coral, and the remaining 375,000 tons of the clay or its equivalent. That is, coral rock would have to be excavated to a depth of one yard over an area a little less than one-half of a square mile, considering one cubic yard of coral in place as weighing one ton, which is a generous estimate. A very large part of the required amount of coral could be obtained from the beach at Colon by surface excavation.

In round numbers the 375,000 tons of clay would represent the excavation of as many cubic yards by dredging to a depth of six feet over an area of 100 feet wide and three and one-half miles long. Mud from the canal, Chagres, or diversions at any point below Gatun would be available for this purpose, and in amounts far in excess of those required for 5,000,000 barrels of cement.

The weight of the rhyolite tuff is something over one ton to the cubic yard, but considering, for simplicity in calculation, that this is the equivalent weight, 375,000 cubic yards would be required. Half as much again if this material is in sight at the west end of the railroad bridge crossing the Chagres at San Pablo, and probably four or five times this amount is available as a conservative estimate.

Speaking generally it may be said that the amount of coral is far beyond that required for twice the number of barrels of cement estimated upon, while the same is equally true of the clay and rhyolite tuff.

KINDS OF MATERIAL TO BE USED.

With so little difference in the chemical composition and physical properties of the three kinds of cement made from the clay, or rhyolite tuff, or combination of both, with the coral as a base, the deciding factor in determining the kind of material to be used is the cost of the raw materials. In this there would appear to be a decided advantage in favor of the mud or clay from the Chagres or canal. This may be obtained entirely by dredging and transported by water directly to the mill which would be most favorably located at some point midway between Gatun and Colon. As has been said, the principal objection to the use of the clay would be the necessity of drying before burning. By the accumulation of large stock reserves most of this drying could take place in air if protected from rain, and the cost would be considerably reduced.

Although the rhyolite tuff would not have to be dried before grinding, the cost of transportation from San Pablo to the mill would be excessive.

FUEL.

Three kinds of fuel may be used in operating the mill and in the kilns; coal from the United States, oil or local lignites. The relative cost of oil and coal is about the same at the prices now prevailing on the Isthmus, that is, $4.50 a ton for coal and 80 cents a barrel for oil. It is believed, however, that the fuel value of the oil would be greater and its efficiency would be increased above that of the coal. As mentioned later, the reported deposits of lignite occurring in the vicinity of Tabernilla might be considered in the manufacture of cement. Fuel of this type is of low grade and used directly would be of little value, but the high percentage of volatile matter present in the lignite could be taken advantage of by means of the gas producer, and used both in the kilns and for power.

COSTS.

The estimated cost per barrel of finished cement is as follows:

Raw material................................	$0.15
Coal	.69
Labor at mill..................................	.12
Plant and interest.........................	.39
Total.....................	$1.34

This estimate is based on the following unit costs:

Clay or mud, dredged and delivered at mill................................	$0.20 per ton
Coral, delivered..............................	.50 per ton
Coal	4.50 per ton

A plant having a minimum capacity of 1,500,000 barrels a year would call for twelve 110-foot rotary kilns, and would cost about $1,500,000. The item of 39 cents for plant and interest in the cost per barrel would absorb the plant and pay interest at 6 per cent in five years.

One of the largest costs for labor in a commercial plant in this country is for packing the cement, and this could be eliminated on the Isthmus.

All of these costs are, in my opinion, maximum ones and might be considerably reduced in practice.

If oil were used in place of coal, taking into account the added efficiency, the price for fuel could undoubtedly be reduced to 50 cents a barrel. A serious objection to the use of oil, however, would be the dependence of one kind of fuel, possibly from one source, and the consequent difficulty of controlling prices and insuring a constant supply.

The use of gas derived from lignite would probably reduce the cost still further if an abundance of this material of good quality could be obtained on the Isthmus. It is unlikely that a sufficient quantity of this fuel exists at points convenient for mining to justify the installation of a gas producing plant; so that should the manufacture of cement be undertaken, coal from the United States would probably be the best fuel to use.

EFFECT OF CLIMATE.

The extreme humidity existing at all times of the year, and especially in the rainy season would probably have no harmful effect on the finished cement. If anything, the humidity would be an advantage in hastening the process of aging, which, as it is now understood, consists merely in the slaking of the free lime that is present in the cement immediately after burning

CONCLUSIONS.

In conclusion it may be said with confidence that Portland cement equal to the best grades manufactured in the United States or Europe may be made on the Isthmus and at a cost not greater than $1.34 a barrel, and probably less.

University Club Election.

The annual election of officers of the University Club was held at the club house Sunday, October 20, 1907. The following officers were elected for the ensuing year: President, Joseph Bucklin Bishop; first vice president, Arnold Shanklin; second vice president, Mason E. Mitchell; honorary president, Theodore Roosevelt; honorary vice presidents, Manuel Amador G., Domingo Obaldia, Jose Agustin Arango, Gen. Thomas H. Hubbard; governors: 1, D. W. Bolich; 2, A. S. Cooper; 3, W. C. Gorgas; 4, T. C. Hinckley; 5, Ernesto Lefevre; 6, D. O. Lively, 7, Nicano Obarrio; treasurer, E. C. McFarland; secretary, P. Vince; assistant secretary, J. E. Marsh.

The club now has a membership of 231 of which 70 per cent are Canal employes. During the year a library of 525 volumes was donated by Gen. Thomas H. Hubbard of New York. The library now contains 700 volumes.

A smoker will be given Saturday, Oct. 26.

SOCIAL LIFE OF THE ZONE.

Continued Successful Working of the Women's Clubs in the Canal Zone.

Miss Helen Varick Boswell having completed her work of organizing clubs among the American women in the Canal Zone, sailed on October 17 for New York on the *Colon*.

The regular meeting of the Ancon Woman's Club was held October 16 at the Hotel Tivoli. The president, Mrs. W. C. Gorgas, was in the chair. At the request of the president Miss Boswell took an active part in the proceedings. In the absence of Mrs. T. C. Lyster, Mrs. Charles H. Jewett acted as secretary. The meeting was called to order, the minutes of the previous meeting were read and accepted, and the constitution was adopted. This being the first regular meeting of the club an informal discussion of the work to be taken up by the various departments was held.

A recommendation to the home department to develop horticulture was received with enthusiasm and lively discussion ensued. It was pointed out that there was no reason why the gardens of homes should not be made beautiful and attractive, that with a little care and attention almost any kind of plant and shrub could be made to grow here, and where the soil is arid all facilities would be given to the procuring of loam or richer earth. It was indicated that seeds would be forwarded from the Agricultural Department at Washington upon application. Those who have no gardens were urged to take up window gardening as a great many women have already done.

Touching upon the educational question a resolution was adopted which embodied appreciation of the efforts of the Commission and Governor Blackburn, but expressed the hope that a strong, progressive school organization would soon be effected.

Several points were brought up with reference to the work of the philanthropical department, the president naming Miss Russell chairman of the committee. It was decided to elect a second vice president to ensure the presence of a presiding officer in case of absence at some time of the president, Mrs. Gorgas, and the vice president, Mrs. Maguire. Mrs. Boxer, of Corozal, was elected to fill the office.

A suggestion that has come from the outside is one that has aroused considerable interest. It is thought that riding, driving, or launch parties could be formed for expeditions to the historic places on the Isthmus and the surrounding islands, a special study of the point to be visited to be made before the excursion, and papers on the subject to be read at previous meetings.

The club will meet on the first and third Wednesdays of each month at 2 o'clock. At the next meeting, November 6, Madame LePrince will give a talk on art.

The Cristobal Woman's Club had a large meeting on October 16, Mrs. Mabel Loomis Todd, of Amherst, Mass., being the guest of honor. The rooms were tastefully decorated for the occasion; a musical program was given. The president, Mrs. Lorin C. Collins, introduced Mrs. Todd, who gave an informal talk on "Astronomical Expeditions," Professor Todd having had charge of nine or ten such expeditions, in most of which he has been accompanied by his wife.

A cordial vote of thanks was tendered to the speaker at the close of her address. An informal reception followed, tea being served.

The Cristobal club is preparing for work of a strenuous character. A lecture on "Home Nursing," by the head nurse of the the Colon hospital, has been arranged by the committee of the home department. The literary department is completing arrangements for a course of papers on Japan and the Japanese.

The president of the Empire club has appointed the following chairmen of the various departments: Membership, Miss Eunice Browning; literary, Miss Jennie Heller; refreshment, Mrs. George Bennett. The regular days of meeting are the first and third Thursdays of each month. On October 17 a musical program was given, followed by a reception to new members.

The Gorgona club has appointed chairmen for the various departments. The club will give an entertainment on Hallowe'en; the following program committee will act: Mrs. Wolfe, Mrs. Calvit, Mrs. Van den Heurk, Miss Faxon. The literary department is considering a course in sociology.

The Paraiso club meets Thursday afternoons of each week. Mrs. F. R. Kosier having tendered her resignation as secretary, Mrs. William E. Lowe was elected.

Degree of Pocahontas, I. O. R. M.

THE CANAL RECORD:

The regular meeting of the Alfarette Council No. 1 will be held in the Fraternal Hall, Culebra, on the sleep of every Thursday, at 7 p. m. A Spanish class will be formed next meeting, and the course will be free to all members of the degree of Pocahantas. Visiting sisters and brothers are cordially invited.

MARIE CANTWELL,
K. of R.

Culebra, C. Z., Oct. 18.

American Social Club.

THE CANAL RECORD:

On Saturday evening, October 12, a very delightful social function took place at Las Cascadas when the members of the American Social Club entertained the members of the community. It was the first social event that had taken place at Las Cascadas and the ladies of the town undertook to prove that in spite of the fact that the inhabitants were so far from home, a social occasion was possible which had in it all the characteristics of a similar time at home. There were about a hundred people present and a number of couples danced to the music of the Marine band whilst others enjoyed the games of various kinds that were provided. A bountiful supply of refreshments was provided by the ladies and much appreciated by the company. The Social Club feels that the thanks of the whole community are due to the ladies for the fine entertainment provided and the carrying out of the program in such a manner as to create a desire on the part of all present that such social gatherings should be held often. J. A. Cresby aided the ladies in their plans and proved himself a fine host.

W. J. LYONS.

Las Cascadas, C. Z., Oct. 13.

PERSONAL.

Mrs. F. G. Kitch, who has been visiting her sister, Mrs. Blackburn, since the arrival of the Governor and his family on the Isthmus, sailed on the *Colon* on October 17, and will spend the winter at her home in Washington, D. C.

Mr. William Gerig, Division Engineer at Gatun and Cristobal, sailed on the *Colon* for New York on October 17 for a six weeks' leave of absence. While he is away his work at Gatun will be in charge of Major Chester Harding, and at Cristobal of Major Edgar Jadwin.

Among those returning to the Isthmus on the steamer *Advance*, which arrived at Cristobal on October 16, were the following: Dr. S. H. Caldwell and Dr. A. B. Herrick, Ancon; Dr. G. H. Putney, Culebra, and Mr. Harry C. Bovay and wife of Ancon.

Among the passengers sailing on the *Colon* on October 17 were Dr. and Mrs. M. E Conner and Mrs. R. B. Smith, all of Cristobal.

Mr. W. G. Comber, Division Engineer at La Boca; Mr. C. E. Weidman, Chief of the Canal Zone Fire Department, and Mr. I. St. Clair Hunt, General Agent of the Panama railroad at La Boca, were among those who returned to the Isthmus on the *Panama* which arrived at Cristobal on October 21.

Mr. Geo. H. Ruggles, Resident Engineer, Division of Municipal Engineering, has removed his office from Empire to Culebra.

Archdeacon Bryan's Plans.

New York newspapers announce that Canon Henry B. Bryan, Archdeacon of Queens and Nassau counties, and for fifteen years connected with the cathedral of the Incarnation, is to give up his duties with the Long Island Diocese to accept the Commission of Archdeacon of Panama, and Vicar General of the Panama Canal Zone and adjacent sections. Canon Bryan is also to be the Chaplain of the Ancon Hospital at Panama.

On his arrival at Panama about November 1, he will practically take the position of Bishop of the Isthmus of Panama, the Canal Zone, and one-half of the United States of Colombia, having all the powers of a Bishop with the exception of ordination and confirmation.

The first work of the Archdeacon will be the establishment of Episcopal churches, under American supervision, for the benefit of the 10,000 Americans, engineers, railroad men, and surveyors. Canon Bryan later may establish a diocesan school on the Isthmus.

Concert.

By the I. C. C. Band at Culebra, C. Z., Sunday, October 27, at 2 p. m.:

PROGRAM:

1 March.....................*The Ambassador*......Bagley
2 Medley selection..*Arrah Wanna*............Morse
3 Intermezzo..........*Starland*..............O'Connor
4 Baritone solo......*Let All Obey*..............Leach

D. E. NORCROSS.

5 Two-step.............*Panama Rag*........Seymour
6 Idyl.......................*Fairy Tales*..........Eilenberg
7 Overture...............*Fest*..........................Luetner
8 Patrol....................*The Blue and Grey*.....................Dalbey
9 March....................*New Rochelle*...........Taylor

CHAS. E. JENNINGS,
Musical Director.

CANAL WORK FOR SEPTEMBER.

Monthly Report of the Chairman to the Secretary of War.

October 16, 1907.

The Honorable,
The Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of operations on the Isthmus for the month of September, 1907:

DEPARTMENT OF CONSTRUCTION AND ENGINEERING

CULEBRA DIVISION.

During the month, the total amount of material excavated in the Culebra Division was 753,468 cubic yards, as against 786,866 cubic yards during the month of August. Of this excavation, 529,452 cubic yards were classified as rock, and 224,016 cubic yards were classified as earth.

The following table shows the work performed during the month, as compared with the month of September, 1900.

Period.	Total amt. mat'l. excavated by steam shovels.	Classification of mat. Rock.	Classification of mat. Earth.	Av. No. of steam shovels work'g during month.	Wk'g d'ys in m'th	Av. amt. excavated per steam shovel per month.	Rainfall during month.
	cu. yds.	*pct*	*pct*			*cu yds.*	*In.*
Sept. 1906	291,452	64	36	21.33	24	13,664	6.82
Sept. 1907	749,529	70	30	38.50	24	19,468	11.12

From this table it will be noted that the total amount of material excavated from the Canal prism in the Culebra Division during the month of September, 1907, was more than two and one-half times the amount removed in September, 1906, and that the average amount per shovel was 42 per cent greater. A larger relative amount of rock was removed in September, 1907, than during the same month last year, while the rainfall was 63 per cent greater than for the same month in 1906.

The number of holes drilled during the month was as follows:

Steam and air drill	57,028 feet	
Well drills	35,262 "	
Hand drills	16,252 "	
Total	108,542 feet	20 5 miles

During the month, 107 tons of explosives were used for blasting.

The output of the rock crusher at Bas Obispo was 15,041 cubic yards.

During the month, 10.9 miles of new track were laid, and 3.6 miles of old track removed.

The daily average number of laborers at work was 6,779, an increase of 586 over the average for the preceding month.

The usual amount of work was accomplished by the Water Service Department, on the dumps, and by the engineering parties, the latter being largely engaged, as usual, in taking cross-section measurements of steam shovel work for use in computing monthly amount of excavation.

CHAGRES DIVISION.

Work in the Chagres Division was continued during the month, and 13,196 cubic yards of earth were excavated at Tabernilla, practically all of this yardage being taken from the Canal prism proper.

All work to be done at Tabernilla hill for the present has been completed to an elevation of plus 50 feet. The remaining 10 feet of depth can not be removed conveniently until the Panama railroad has been relocated.

At San Pablo, 10,550 cubic yards of earth were removed from the Canal prism, and 42 acres of land were cleared, completing the preliminary clearing of the Canal prism and most of the dump, in this vicinity.

At Caimeto peninsula, opposite San Pablo, 49 acres of land were cleared, completing about one half the clearing necessary for the Canal prism and dump in this vicinity. The shovel was moved from Tabernilla to Caimeto, preparatory to beginning excavation at the latter point.

During the month, 4,800 feet of new track were laid; 2,550 feet of track were ballasted; 3,160 feet surfaced; 2,040 feet graded, and 1,300 feet raised.

Cross-sectioning of the line of the Canal was finished on miles 21 and 22, and center-line levels were run from Frijoles to Tabernilla.

At San Pablo, mile 24 and part of mile 25 have been cross-sectioned and slope stakes have been set up.

The rainfall at San Pablo for September was 13.39 inches.

COLON DIVISION.

During the month four dredges were in operation on this Division, three of which worked in the Canal prism and the fourth outside of the prism. The amount and character of the material removed by each dredge are as follows:

Dredges.	Material.	Amount.
		Place measurement.
1 Five-yard dipper dredge	Soft	17,000 cubic yards
1 Old French ladder dredge	Soft	132,101 cubic yards
1 Sixteen-inch suction dredge	Soft	10,968 cubic yards
1 Seagoing suction dredge (*Ancon*)	Soft	260,773 cubic yards
		420,852

The sea-going suction dredge *Ancon* and the old French ladder dredge operated in Limon bay. The 16 inch suction dredge worked at the point where the present Canal crosses the old French canal at Mindi. The dipper dredge operated in the Chagres river, on the site of the Gatun Dam.

Work was continued at the Mindi hills during the month by two steam shovels, one of which worked in very swampy material, which greatly hampered progress, as also sickness of the crew. This shovel removed 8,671 cubic yards from the Canal prism. The other shovel suffered from delays incident to sickness, but worked in more favorable material, removing 20,166 cubic yards.

Gatun Locks—Four shovels worked throughout the month at the lock site, and a fifth shovel was started on the 25th. The total output amounted to 87,425 cubic yards.

All borings were made at the south end of the lock site, and 1,145 feet were drilled.

At Porto Bello the work during the month consisted of boring for gravel, clearing on the reservoir site, and stripping on the dam site.

In the office, work was continued on plans for the concrete plant for the locks, as well as specifications for cableways and cable railways connected therewith; also on plans for crusher plant at Porto Bello.

Gatun Dam and Spillway—During the month there were two shovels at work on the spillway site, the excavation amounting to 30,315 cubic yards. The filling at the bridge at the upper end of the dam was continued. During the month 187 piles were driven on this bridge.

The sluicing of material from Dump No. 2 into the dam was continued until September 27, about 5,000 yards having been sluiced down.

Work on the 20-inch pipe line of the first suction dredge is practically completed, and work on the hull is progressing satisfactorily.

LA BOCA DIVISION.

Dredging in this Division was continued by an old French ladder dredge, a 5-yard dipper dredge, and a second old French ladder dredge which was put into operation during the month. The total amount of material dredged was 153,975.

Locks and Dams—Two shovels were in operation at the lock site part of the month, the excavation amounting to 5,431 cubic yards. On the east side of the lock site 540 feet of trestle was driven, making a total of 1,417 feet on the east and west sides. The trestle on the west side is being used as a dump by the Culebra Division.

Boring operations were continued between La Boca and Miraflores.

The excavator at the drainage ditch progressed 746 lineal feet

Preliminary work was started on the various features of Sosa lake.

The rainfall during the month was 10.14 inches.

RELOCATION OF THE PANAMA RAILROAD.

Connection tracks from operated lines—At the close of the month connection tracks which were started during the month of June had progressed as follows:

1	Pedro Miguel	completed
2	Gatun	90 per cent completed
4	Lion Hill	90 per cent completed
3	Gatun	completed
5	Gamboa	completed
6	Miraflores	completed
7	San Pablo	completed
8	La Boca Junction	completed
9	La Boca Junction	completed
10	Buena Vista	20 per cent completed
11	Tiger Hill	40 per cent completed

Grading—During the month, 66,677 cubic yards of material were excavated, and 162,777 cubic yards were placed in embankment.

Trestles for filling—The third trestle, one mile south of Mindi Junction was completed.

The trestle in connection track No. 6, to Corozal dumps, was completed.

A trestle 500 feet long was constructed at the south end of connection track No. 6, to connect with relocated line.

Five hundred feet were added to the trestle at Ciametillo river, leaving 200 feet to be built.

Bridges and culverts—The temporary trestle for Gamboa bridge, 1,035 feet long, was completed.

The south abutment of bridge No. 309 was completed, and piles driven in foundation of Pier No. 1.

A total of 524 cubic yards of concrete was placed in small culverts between Mindi and Gatun and Pedro Miguel and Panama.

About 5,000 lineal feet of foundation piles were driven for the 10 by 19 arch culvert at Gatun.

Track—During the month 1,618 feet of permanent track was laid, making a total of 15,439 feet to date.

The force of laborers averaged 850 men.

DIVISION OF MUNICIPAL ENGINEERING.

Panama—A force of men has been engaged on paving work in the vicinity of the new theatre, and a small amount of maintenance work was necessary on the roads in Ancon grounds. New roads were in course of construction to the new Governor's residence and Sosa hill.

The crusher plant at La Boca was operated, yielding an output of 1,200 cubic yards.

Line Work—Work on the road at Pedro Miguel was continued.

Between Paraiso and Cucaracha a 4-inch and a 6-inch water line were relocated.

The output of the Rio Grande crusher for the month was 5,436 cubic yards.

A road to the post-office, Culebra, was completed, and other road work was continued at this point.

Camacho reservoir was connected with the Las Cascadas system, thus permitting the dismantling of the pumping station at the latter point.

Colon and vicinity—At Mount Hope tanks for the fuel oil supply were placed, and a sidewalk was constructed to the filtration plant.

The installation of house connections was continued at Colon, as well as the work on the Bolivar and D street sewers.

The driving of sheet piling on D street was continued, and a small amount of macadam was laid in Colon.

Work was continued on the construction of roads at Cristobal.

DIVISION OF METEOROLOGY AND RIVER HYDRAULICS

The usual observations and measurements were taken during the month.

At Ancon and Naos the mean temperature recorded was 81 degrees, and at Bas Obipo and Cristobal 79 degrees.

Throughout the central section, from Bas Obispo to Rio Grande, the increase in the rainfall over the corresponding period of last year was from 4 52 inches at Gamboa, to 6.85 inches at Rio Grande. On the Pacific slope, the increase was 6.13 inches at Ancon, 6 81 inches at La Boca, while at Naos, only three miles distant in the Pacific, the increase was only 1.68.

MECHANICAL DIVISION.

The work in the Mechanical Division during the month comprised the following:

Erection of new shops and installation of machinery.

Work on construction of five track shifters and five pile drivers.

Work on erection of three Lidgerwood unloaders.

Repairs to old French locomotives.

Installation of new boiler plants at Rio Grande, Empire, Gorgona and Paraiso.

Erection of 400,000-gallon tank at Gatun.

Repairs to locomotives, cars, steam shovels, unloaders, spreaders, track [illegible] pile-drivers, and other equipment.

Miscellaneous new and repair [illegible] other division and departments.

Erection of cable towers for the [illegible] electric line.

Wiring at Gatun—Wiring and pole line work in Culebra, Empire and Gorgona [illegible] districts.

The usual work in connection with the operation, maintenance and repair of shop, electric light and air compressor plants; also work on shop yards and grounds.

DIVISION OF BUILDING CONSTRUCTION.

During the month, 53 new buildings were constructed as follows:

Belt house	1	Shack 10 by 10	1
Blacksmith shop	1	Shed 20 by 40	1
Bridges	1	Sump pool shed	1
Cinder pit	2	Standard laborers' barracks No. 2	2
Corral	1		
Erecting shed	1	Type 14 houses	20
Filter plant	2	Type 17 houses	6
Fumigation house	1	Type 18 dormitories	6
Gallows	1	Type 19 houses	2
Hospital building	1		
Oil house	1		
Platform	1	Total	53

Repairs were made to 101 buildings, and 11 old buildings were demolished.

DEPARTMENT OF LABOR, QUARTERS AND SUBSISTENCE.

There were brought to the Isthmus during the month, 119 West Indian laborers and 664 European laborers; a total of 783.

The number of gold men employed in the States was 204, and the number of gold men employed on the Isthmus, 146.

On the 30th of September, there were working for the Commission 4,638 men on the gold rolls and 18,969 men on the silver rolls, making a total force of 23,607.

The Panama railroad force was 6,2[illegible]8.

The subsistence operations for the month showed a loss of $2,423.40. This loss is to be accounted for by the fact that September had but thirty days and included five Sundays and a holiday. The payroll and general expenses were about the same, but the revenue fell off considerably. As the receipts approximate $5,000 a day, the loss of one or two days' receipt will turn the balance sheet from a profit to a loss. The net income during the month of October will more than counterbalance this deficiency.

A new hotel was opened at Bas Obispo on September 7.

DEPARTMENT OF CIVIL ADMINISTRATION.

General—At a conference between the Secretary of Government of Panama, the Chairman of the Commission, and the Head of the Department of Civil Administration, respecting the laying of the cable of the Central and South American Telegraph Company through Manzanillo Bay, a modus vivendi was arranged, pending the adjustment of the question of jurisdiction over those waters.

The importation of tobacco, free of duty, was discussed again by correspondence, and in conference with the Secretary of Government of Panama, with a view to devising an arrangement whereby the Commissary might purchase duty-paid tobacco at cost, plus the Panama duty.

During the month, correspondence between the Foreign Office of the Republic of Panama and the Head of the Department of Civil Administration, also included negotiations respecting the following subjects:

Signing of revised contracts for the collection of water rents in the cities of Panama and Colon.

The assistance of a representative of the Republic of Panama at the quarterly reading of the water meters in the city of Panama.

The making of maps showing the location of the boundaries of the Canal Zone, as determined by recent joint survey.

The paving of B street in the city of Panama, on which a street railway has been laid.

The paving and widening of streets in the vicinity of the new Government palace and National theatre, in the city of Panama.

Harbor regulations of the ports of Panama and Colon.

Under the terms of a circular issued by the Panama Railroad Company, the children of Panamanian citizens are granted a reduced rate of one fare for the round trip from Colon to New York and return, when going to the United States to attend schools. By a recent resolution of the Commission, the same rate was extended to Peruvian students attending schools in the States.

Courts—The Supreme Court was not in session during the month of September. In the Circuit Court, 6 civil and 21 criminal cases were settled. In the district courts, 51 civil and 118 criminal cases were disposed of.

Revenue Department—The postal receipts for the month aggregated $5,126.35. The money order sales for the month amounted to $332,287.57, an increase of $[illegible] over the sales for August.

The usual business was transacted in connection with the postal service, land collections, customs, internal revenue and administration of estates.

The collections turned into the Treasury aggregated $5,[illegible]28.23, as compared with $5,[illegible].29 during the month of August. The fines and costs turned in by the district judges amounted to $2,5[illegible].

Police Department—During the month there were 557 arrests, as compared with 568 during August, and 431 during July. The increase over the number in August was due to the number of arrests made for gambling, 12 persons having been taken into custody on that charge.

During the month, 11 policemen were enlisted, and 12 discharged, the force on September 30, being 200 officers and men.

During the month, 7 persons began penitentiary sentences; and 7 convicts were discharged from the penitentiary by reason of the expiration of their sentences.

As coroner of the Canal Zone, the Chief of Police reported 10 deaths during the month, 6 of which were due to railroad accidents.

Fire Department—The Chief of the Fire Department reported 5 fires in the Canal Zone, and one in the city of Panama, during the month. All the fires in the Zone were extinguished before serious damage resulted. The fire in the city of Panama destroyed two buildings near the freight depot, owned and occupied by the Panama Railroad Company. These buildings were entirely destroyed, resulting in a loss of $10,000.

The personnel of the Fire Department was increased during the month by the appointment of 6 firemen, the present strength of the force being 27 paid firemen and 320 volunteers.

The periodical inspection of Commission property by members of the Fire Department, was continued during the month, and steps have been taken to reduce to a minimum the danger of fire at the more important Commission buildings.

DIVISION OF SCHOOLS.

A large amount of work, preparatory to the opening of the Zone schools on October 1, was accomplished by the Division of Schools during September. Teachers for all the schools have been appointed. Of the appointees, 15 are negroes for the colored schools, the remainder with one exception are American teachers, 7 having been tendered appointments in the United States.

The Superintendent of Schools has prepared courses of study, general rules governing the teachers and the schools and a proposed curriculum.

DIVISION OF PUBLIC WORKS.

On September 30, there were 1,092 water connections in use in the city of Panama, 140 in Colon and 50 private connections in the Zone, as compared with 1,075, 119 and 47, respectively, on August 31. A number of permits were issued by the chief plumbing inspector for installations in the cities of Panama and Colon.

The quarterly reading of the meters was completed in Panama and Colon during September. In Panama 1,072 bills for water rents, of a gross amount of $15,822 gold, were prepared.

Under the amended agreement with Panama, by which that government guarantees the collection of $16,400 quarterly, on account of water rents in Panama, it is not possible, until the collections have been completed, to determine the amount payable by Panama for water used for public purposes during the past quarter. In Colon the gross amount for which bills were prepared was $[illegible],868.20.

The average daily consumption of water in the city of Panama during the month, was 731,200 gallons, a slight increase over the consumption during August.

In Colon the average daily consumption was 292,567 gallons.

DEPARTMENT OF HEALTH.

[The full report from this Department was published in THE RECORD of last week.]

Respectfully,

GEO. W. GOETHALS,
Chairman.

COMMISSION DECISIONS.

At a meeting of the Isthmian Canal Commission on October 5, the following action was taken:

1. In view of the large number of applications for family quarters now pending, upon motion, it was

Resolved, That it will be impracticable hereafter to provide other than bachelor quarters for employes who are not citizens of the United States.

2. The Chairman submitted the question whether the Commission would authorize the construction of a house at Culebra to be used as a residence for four women school teachers, and upon motion, it was

Resolved, That it is not deemed expedient to provide special quarters for any class of employes with the exception of members of the Fire Department and of certain employes of the Postal Service, the nature of whose duties requires that such accommodations be furnished.

Resolved, That the provisions covering sick leave on account of injury incurred in the performance of duty adopted at the 129th meeting of the Commission, should be applied as follows:

For employes on both the gold and silver rolls, including laborers, the amount of compensation in such cases should be calculated on the basis of an eight hour day for consecutive days, including Sundays and holidays, no charge to be made for subsistence while at the hospital; provided, that before payment is made to any laborer who may be indebted to the Commission for transportation to the Isthmus, the usual deduction on that account shall be made from the amount due him.

The Chairman presented the report of the Board appointed by the Chief Sanitary Officer to investigate the causes of pneumonia on the Canal Zone, in which report it is recommended that each newly arrived laborer be furnished two suits of underclothing and two blankets. In accordance with these recommendations, it was the sense of the meeting that each laborer, upon his arrival, should be advised of the importance of being provided with necessary underclothing and blankets; notices to this effect to be conspicuously posted.

Drowning Accidents.

Two unfortunate drowning accidents occurred the past week. The first was at San Pablo on the evening of October 15. The cayuca ferry in use there for the convenience of laborers in crossing the Chagres river was making a trip at about 8:30 p. m. with nine Martinique laborers and the ferryman, Charles Pilgrim. When the cayuca struck the rapid current in the channel it shipped a little water, which frightened the men, who stood up and attempted to change positions. The boat capsized and all were thrown into the water. Three of the Martiniquans succeeded in swimming ashore but the other seven were drowned. Five of the bodies were recovered and search is being made for the others.

The second accident occurred at about 5 p. m. on October 16, on the Cocoli river. During a very heavy rainstorm, several laborers of a survey party working near Miraflores wanted to take shelter in the camps across the Cocoli river. As the regular boatmen were not there, the boat was brought over to them by a volunteer crew. The men so crowded the boat that it capsized shortly after leaving the bank. The exact number of men in the boat is unknown, but four men were known to have been drowned, as their bodies have been recovered. One man, a Spaniard, was rescued by the heroic work of three rodmen, J. O. Wilson, William Aldrich and Cecil Sherman, who seeing the man struggling in the water, jumped in, and after great difficulty, owing to the rapidity of the current, succeeded in bringing him ashore.

COMMISSARY DEPARTMENT.

Notices.

Purchasers through the Commissaries, placing their orders for supplies either through a Commissary or by mail, are requested, in order to insure prompt reply when making claim for shortage or for any other reason, to quote Paid Order number and date of same.

A stock of molders' shoes are now on sale at the Gorgona Commissary.

For the guidance of all purchasers through the Commissaries, Circular A-24, effective as of August 1, is published hereunder. A great many purchasers who are placing their orders by mail are not complying with the terms of the circular as to the time at which their cold-storage orders should be placed. The thousands of orders that we have to handle daily make it imperative that the provisions of the circular be strictly complied with:

CIRCULAR A-24.

Beginning as of August 1, 1907, it is requested that as far as possible, purchasers where Commissaries are located, withdraw their deposit accounts covering cold storage or groceries from the main Commissary at Cristobal, and deposit only to cover bread and ice. With the facilities acquired by the use of the new cold-storage plant, which has just been completed, we can better serve purchasers by having them place their orders through the Commissaries than to do so by having deposits placed at Cristobal.

In order that we may have time to devote the necessary care to the filling of orders, it is required that cold-storage orders be placed with the Commissary storekeepers before 5 o'clock p. m. for fulfillment on the second morning succeeding the day on which the order is taken, that is a purchaser would place an order on Monday for supplies that he would receive Wednesday morning. In so far as possible, Commissary storekeepers will be advised early each morning what is on sale in the cold storage so that purchasers may depend upon receiving what they order. Purchasers are requested to co-operate as far as possible with these requirements, in order that we may give good and prompt service.

Purchasers having deposit accounts must mail their orders so that they will reach the Cristobal Commissary not later than 7 a. m. the day preceding delivery.

The foregoing instructions does not prohibit the placing of deposit accounts by purchasers located at places where there are Commissaries, but in doing so they must assume the entire risk of nonfulfillment of orders on account of goods being out of stock, as we will not substitute; Commissary storekeepers being supplied with information as to what is on sale in cold storage, insures delivery of what is ordered through them.

JOHN BURKE,
Manager.

Commissary Prices.

For week ending Oct. 16:

FRESH MEATS.		Price. CTS.
Beef, sirloin, roast	per lb...	†25
Beef, rump, roast	do	†25
Beef, Porterhouse	do	†25
Beef, rib-roast, short-cut (not under 3½ pounds)	do	17
Beef, rib-roast, second-cut	do	15
Beef, chuck-roast	do	12
Beef, soup	do	7
Beef, stew	do	10
Beef, corned	do	10, 12, 14
Beef, corned, sirloin butts, all lean	do	14
Beef, corned, fancy boneless brisket	do	18
Steaks, sirloin	do	†25
Steaks, Porterhouse	do	†25
Steaks, rump	do	†25
Steaks, tenderloin	do	22
Steaks, round	do	12½
Veal, cutlets	do	†23
Veal, short-cut chops	do	†22
Veal, loin	do	†14
Veal, entire forequarters	do	†10
Veal, for stewing	do	†10
Mutton, entire forequarters,	do	10
Mutton, short-cut chops	do	19
Mutton, leg	do	17
Lamb, for stewing	do	11
Lamb, entire forequarters	do	11
Lamb, short-cut chops	do	27
Lamb, legs	do	21
Pork, cuts	do	20

MISCELLANEOUS.		
Livers, beef	per lb...	9
Livers, calf	apiece...	[illegible]
Sausage, pork	per lb...	16
Sausage, Frankfurt	per lb	17
Sweet Breads, veal	do	$1.20
Sweet Breads, beef	do	25
Sausage, Bologna	do	13½
Oysters, ½-gallon kegs	each...	70

POULTRY AND GAME.		
Chickens, dressed (milk-fed)	each...$	1.25
Fowls	do	85
Turkeys	per lb...	26¼
Broilers, frys (chicken)	each...	80
Squabs	do	35
Ducks (fatted)	do	1.45
Eggs, fresh	per dozen	†35

CURED MEATS AND LARD.		
Bacon, strips per lb	per lb...	23
Bacon, English breakfast, sliced	do	§26
Ham, sugar-cured, sliced	do	§25
Ham, one-half (for boiling)	do	§20
Ham, Yorkshire (imported)	do	25

DAIRY PRODUCTS.		
Butter, prints, prime quality	per lb...	†40
Cheese, Roquefort	do	45
Cheese, Young America	do	22
Cheese, Swiss	per lb..	30
Cheese, Gouda	do	30
Cheese, Cheddar loaf	do	32
Cheese, Edam	each...	90
Milk, Briarcliff Farm	per quart	**25

FRUITS AND VEGETABLES.		
Oranges	per dozen	12
Apples	per lb...	†9
Limes	per hundred	30
Bananas	per dozen	5
Peaches	per lb...	13
Grapes	do	8½
Pears	do	*13
Grape Fruit	each...	3
Celery	per bunch	18
Cucumbers	per lb...	†12
White potatoes	do	3
Lettuce	do	†17
Onions	do	2
Cauliflowers	do	*9
Tomatoes	do	5
Yams	do	2½

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* Indicates reductions from last list.

† Indicates advance on last list.

** Indicates 5 cents allowed for return of bottle.

§ Sold only from Cold Storage and not from Commissaries.

ERRORS IN OCTOBER LIST.

The following errors have been made in compiling Price List No. 5 for October, 1907:

Page 1—Butter, Petit & Reid, tins 5s.		$1 70
Page 13—Beef, corned, Libby's	do 2s.	21
Page 15—Sausage and sauerkraut	do 1½s.	9
Tongues potted, Rex	do ½s.	7
Page 19—Bacon, Ferris	per lb...	24
Page 37—Coats, colored jean, No. 102c, Battleship brand, should be Coats, colored jean, No. 102c Cones Boss brand, stock No. 37,476	each	85
Overalls, apron, colored jean, No. 228a, Battleship brand, should be Overalls, apron, colored jean, No. 228a, Cones Boss brand, stock No. 37,472		85
Overalls, apron, colored jean, No. 31a, Battleship brand, should be Overalls, apron, colored jean, No. 31a, Cones Boss brand, stock No. 3,475	each	85
Page 38—Pants, colored jean, No. 228p, Battleship brand, should be Pants, colored jean, No. 228p, Cones Boss brand stock No. 37,473	pair	80
Pants, colored jean, No. 254, Battleship brand, should be Pants, colored jean, No. 254, Cones Boss brand, stock No. 37,474	pair	85

Page 70—Under Blanco Dressing for Shoes read next nine items as Brushes

NOTICE OF PRICE CHANGES.

		Old Price CTS.	New Price CTS.
Ham, sliced, Armour's 1s	tin..	25	30
Ham, sliced, Libby's 1s	do		25
Corned-beef Hash, Armour's 1s	do	14	16
Caviar, Ditman's Russian, ½s	do	66	59
Caviar, Ditman's Russian ¼s	do	34	47
Ammonia, Gray's	bot.		8
Ammonia, Parson's Household	do		15
Cases, pillow, stock No. 35,859	each	25	23

NEW ARTICLES.		Price CTS.
Hams, Westphalia	per lb.	45
Bacon, Tropical	do	23
Relish, Corn	per tin	22
Cassia-Lignea	per lb...	12½
Jelly, calf's foot, ¼s	per bot	27
Cream of Tartar	per lb...	30
Triscuit	per tin	19
Cardframes and holders, stock No. 37,587	each...	7
Clocks, regulator, oak, No. 8, eight-day, stock No. 37,594	do	$32.00
Chairs, office, revolving, stock No. 37,621	do	4.80
Trunks, steamer, No. J 82, 36-in., stock No. 37,597	do	9.50
Trunks, steamer, No. J 88, 36-in., stock No. 37,598	do	20.00
Trunks, steamer, No. J 99, 36-in., stock No. 37,599	do	25.00
Trunks, steamer, 36-in., stock No. 37,622	do	7 00
Trunks, steamer, 32-in., stock No. 37,623	do	6 25
Trunks, steamer, 28-in., stock No. 37,624	do	5.50
Suits, wash, lot No. S 3079, S 2409, S 2410, Battleship brand, stock No. 37,517	suit...	5.00
Suits, wash, lot No. S 1834, Battleship brand, stock No 37,522	do	3.00
Suits, wash, lot No S 2050, Battleship brand, stock No. 37,523	do	3 75
Suits, wash, lot No. S 2327, Battleship brand, stock No. 37,526	do	4 40
Pants, wash, lot No. 3079, Battleship brand, stock No 37,518	pair.	2 05
Pants, wash, lot Nos. 2409 and 2410, Battleship brand, stock No. 37,519	do	1.90
Pants, wash, lot No. 1834, Battleship brand, stock No. 37,521	do	1.25
Pants, wash, lot No. 2050, Battleship brand, stock No 37,524	do	1.55
Pants, wash, lot No. 2327, Battleship brand, stock No. 37,525	do	1.70
Zephyrs, fancy, 27-in., No. 219, stock No. 37,527	yard.	25
Oxford Sky, 28-in., No. 849, stock No. 37,528	do	12
Serge, cream, twill, worsted, 56-in quality, No. 1316, stock No. 37,529	do	1.70
Serge, striped, tennis, worsted, 56-in. quality, No. 1056, stock No. 37,531	do	1.35
Serge, cream, worsted, striped 56-in. quality, No. 1056b, stock No. 37,532	do	1.35
Serge, cream, worsted, striped, 56-in. quality, No 1058b, stock No. 37,533	do	1.35
Serge, cream, worsted, striped, 56-in quality, No. 1056a, stock No 37,536	do	1.35
Serge, indigo, twill, worsted, 56-in. quality, No. 829, stock No. 37,534	do	1 90
Serge, indigo, twill, worsted, 56-in. quality No. 1027, stock No. 37,535	do	1.70
Napkins, damask, ⅝x⅝, No. 2224, stock No. 37,537	each.	16
Napkins, damask, ⅝x⅝, No. 2521, stock No. 37,538	do	24
Napkins, damask, ¾x¾, No 2521, stock No. 37,539	do	34
Napkins, damask, ¾x¾, No. 625, stock No 37,541	do	57
Napkins, damask, ¾x¾, No. 119, stock No. 37,542	do	80
Napkins, damask, ¾x¾, No. 404, stock, No 37,543	do	24
Cloths, table, 2x2 yards, No. 625, stock No. 37,544	do	4.30
Cloths, table, 2x3 yards, No. 625, stock No. 37,545	do	6.50
Cloths table, 2x2 yards, No. 2224, stock No. 37,546	do	1.95
Cloths, table, 2x2½ yards, No 404, stock No. 37,547	do	2.55
Cloths, table, 2x2 yards, No. 119, stock No. 37,548	do	4.95
Cloths, table, 2x3 yards, No. 119, stock No. 37,549	do	7.75
Cloths, table, 2x2 yards, No. 2521, stock No. 37,551	do	2.70
Cloths, table, 2x2½ yards, No. 2521, stock No. 37,552	do	3.45
Suitings, embroidered, crash, striped, stock No 37,553	yard.	32
Khaki drill, 28 in., No. X 10,358, stock No. 37,554	do	25
Laces, shoe, silk, white, 30-in., No. 325, stock No. 37,566	pair....	18
Laces, shoe, silk, black, 30-in., No. 508, stock No. 37,567	do	16
Laces, shoe, silk, tan, 30-in., No. 5080, stock No. 37,568	do	18

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Mr. H. H. Rousseau, U. S. N., Culebra.
Mr. Jo. C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop,
Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. K. DePutron, chief clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
C. A. McIlvaine, chief clerk.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, chief clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, chief clerk.
W. G. Comber, Division Engineer, La Boca.
David V. Stratton, chief clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, chief clerk.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
E. P. Thompson, chief clerk.
Wm. Gerig, Division Engineer, Cristobal.
Sydney B. Williamson, Division Engineer, La Boca.
E. A. LeMay, chief clerk.
W. G. Comber, Division Engineer, La Boca.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, chief clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: H. H. Rousseau, U. S. N., Culebra.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, chief clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, chief clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M Belding, Master Builder (Divsion of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, chief clerk.

Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, chief clerk, Cristobal.
W. C. Haskins, chief clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.

Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, chief clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, chief clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
E. H. Hale, chief clerk.
Geo. L. Campen, Water Commissioner, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, clerk of court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court clerk, Cristobal.
Prosecuting Attorney: George M. Shontz, Ancon.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Acting Prosecuting Attorney: Thomas E. Brown, jr., Ancon.
Translators: F. H. Sheibley and Charles M. Brown.
M. C. Rerdell, Senior District Judge, Culebra.
Thomas E. Brown, jr., District Judge, Cristobal.
J. M. Fernandez, District Judge, La Boca.
R. B. Myers, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry C. Bovay, chief clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, chief clerk.
J. M. Maguire, Ancon; C. C. McColley, Empire; Chas. L. Parker, Gorgona; Edgar Lowe, Cristobal, division superintendents.

Panama Railroad Company.

H. J. Slifer, Assistant to the President and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, chief clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, chief clerk.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Oct. 19, 1907.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Anderson, G.
Anderson, Miss Lena
Carroll, Michael
Davis, Clifford W.
Evans, John J.
Henriquez, J. A.
Johnson, C. H.
Kelly, Jas. J.
Krueger, Chas. J.
Kuton, St. Clair
Loulan, Frank
Marsh, W. H.
Marx, LeRoy
Robinson, Mrs. Chas.
Sweigardt, R.
Tireman, Claude
Tiernan, H. A.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Prinz Sigismund	*H.-A.*	*Saturday*	*Oct.*	*19*
La Plata	*R.M.*	*Saturday*	*Oct.*	*19*
Dunottar Castle	*P.RR.*	*Monday*	*Oct.*	*21*
Finance	*P.RR.*	*Friday*	*Oct.*	*25*
Altai	*H.-A.*	*Saturday*	*Oct.*	*26*
Colon	*P.RR.*	*Thursday*	*Oct.*	*31*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*2*
Tagus	*R.M.*	*Saturday*	*Nov.*	*2*
Advance	*P.RR.*	*Wednesday*	*Nov.*	*6*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*9*
Panama	*P.RR.*	*Monday*	*Nov.*	*11*
Prinz Sigismund	*H.-A.*	*Saturday*	*Nov.*	*16*
Orinoco	*R.M.*	*Saturday*	*Nov.*	*16*
Dunottar Castle	*P RR.*	*Monday*	*Nov.*	*18*
Finance	*P.RR.*	*Friday*	*Nov.*	*22*
Altai	*H.-A.*	*Saturday*	*Nov.*	*23*
Colon	*P.RR.*	*Wednesday*	*Nov.*	*27*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*30*
Atrato	*R.M.*	*Saturday*	*Nov.*	*30*
Advance	*P.RR.*	*Monday*	*Dec.*	*2*
Venetia	*H.-A*	*Saturday*	*Dec.*	*7*
Panama	*P.RR.*	*Monday*	*Dec.*	*9*
Dunottar Castle	*P.RR.*	*Saturday*	*Dec.*	*14*
Prinz Sigismund	*H.-A.*	*Saturday*	*Dec.*	*14*
Trent	*R.M.*	*Saturday*	*Dec.*	*14*
Finance	*P.RR.*	*Thursday*	*Dec.*	*19*
Altai	*H.-A.*	*Saturday*	*Dec.*	*21*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*24*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec.*	*28*
La Plata	*R.M.*	*Saturday*	*Dec.*	*28*
Advance	*P.RR.*	*Monday*	*Dec.*	*30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Tagus	*R.M.*	*Wednesday*	*Oct.*	*23*
Venetia	*H.-A*	*Saturday*	*Oct.*	*26*
Panama	*P.RR.*	*Monday*	*Oct.*	*28*
Dunottar Castle	*P.RR.*	*Saturday*	*Nov.*	*2*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Nov.*	*5*
Orinoco	*R.M.*	*Wednesday*	*Nov.*	*6*
Finance	*P.RR*	*Thursday*	*Nov.*	*7*
Altai	*H.-A.*	*Saturday*	*Nov.*	*9*
Colon	*P.RR.*	*Wednesday*	*Nov.*	*13*
Advance	*P.RR.*	*Monday*	*Nov.*	*18*
Prinz Eitel Freidrich	*H.-A.*	*Tuesday*	*Nov.*	*19*
Atrato	*R.M.*	*Wednesday*	*Nov.*	*20*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*23*
Panama	*P RR.*	*Sunday*	*Nov.*	*24*
Dunottar Castle	*P.RR*	*Friday*	*Nov.*	*29*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*3*
Finance	*P.RR.*	*Wednesday*	*Dec*	*4*
Trent	*R.M.*	*Wednesday*	*Dec.*	*4*
Altai	*H.-A.*	*Saturday*	*Dec.*	*7*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*10*
Advance	*P.RR*	*Sunday*	*Dec.*	*15*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Dec.*	*17*
La Plata	*R.M.*	*Wednesday*	*Dec.*	*18*
Panama	*P.RR.*	*Saturday*	*Dec.*	*21*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*21*
Dunottar Castle	*P.RR.*	*Thursday*	*Dec.*	*26*
Finance	*PRR.*	*Tuesday*	*Dec.*	*31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*31*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

La Plata	*R.M.*	*Tuesday*	*Oct.*	*29*
Tagus	*R.M.*	*Tuesday*	*Nov.*	*12*
Qrinoco	*R.M.*	*Tuesday*	*Nov.*	*26*
Atrato	*R.M.*	*Tuesday*	*Dec.*	*10*
Trent	*R.M.*	*Tuesday*	*Dec.*	*24*

All Royal Mail steamers mentioned above and the *Prinz Eitel Friedrich* and *Prinz Sigismund* call at Kingston enroute to New York.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

Cost of Erecting New Equipment.

The Mechanical Division reports the following average labor cost for erecting new equipment on the Isthmus. The labor cost is for labor actually applied, including foreman's supervision:

LOCOMOTIVES.

200-class	19 by 24 inches Mogul	$590.35
300-class	19 by 24 inches Mogul	790.30
600-class	20 by 26 inches Mogul	820.00

STEAM SHOVELS.

45-ton	490.00
70-ton	650.00
95-ton	770.00

CARS.

Western dump cars 18 6-10 yards	40.00
Western dump cars, 12-yard	30.00
40-ton wooden flat cars	77.10
50-ton steel flat cars	82.70
Ingoldsby dump cars, 50-ton automatic	64.90
Goodwin dump cars, 40-ton automatic	67.40

CANAL RECORD

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The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

The Cucaracha Slide.

The work of removing the material cast into the Cut by the Cucaracha slide has advanced very favorably during the past week, and a steady gain upon the slide has been made. On Sunday night about 900 cubic yards were taken out and on Monday more than 1,000 cubic yards. During the first two weeks the slide moved steadily toward the Cut at the rate of about 14 feet per day, but this rate of motion has decreased in the past four or five days.

One through track has been laid, and a second will be laid within the next few days if all goes well. The movement of dirt trains through the cut will then be resumed.

Upon the whole the conditions regarding the slide are more favorable than was first anticipated they could be at this time. The total amount of earth which will have to be removed will probably be less than was first estimated. Steady progress has been made in spite of the fact that the rains of the month have been the heaviest of the year.

Lock and Dam Work.

The new borings which have been made over the entire area of the lock site at Gatun show that the locks will rest for their entire length on rock; all doubt on this point has been removed. Work on the designs of the locks, gates and sluiceways is advancing steadily, and from the project studies certain points have been decided. The gates are to be in duplicate and of the miter type, and the rolling gate, similar to that now in use on the Ohio river will be substituted for the duplicate set at the lower end of each summit level lock. In addition, there will be provided an auxiliary pair of gates at the lower end of each flight, for use as coffer dams in case it may be necessary to pump out the locks, and it has been determined tentatively to adopt a swing bridge type of dam for emergency use. The method of filling and emptying the locks has been finally decided upon.

The cross section of the dam has been slightly changed and the upstream slope has been made more gradual than originally proposed.

New borings have been made in the vicinity of the Pedro Miguel locks and dam, and excavation for the lock site is proceeding steadily.

Post Offices on Panama Ships.

The postmaster of New York has announced that after November 1, the steamships of the Panama Railroad Company, plying between New York and Cristobal will be fitted with sea post offices, in which all the mails to and from the Canal Zone will be distributed while *en route*. It is understood that the first steamship to be equipped with such a post office will be the *Colon*, which will sail from New York on October 31. A room for this purpose has been fitted up on the ship. The proposal for this sea service has been under consideration for two years and has been pressed urgently by the Zone postal authorities during that period. At present all mail to the Zone is taken in bulk to Colon and distributed thence to the various Zone stations, and on the return trip all Zone mail is taken to the New York post office and assorted before being sent to its destination. Under the new arrangement the unavoidable delays incident to the present method of distribution will be eliminated, and a gain of several hours in delivery will be secured, both in the Zone and in the States.

Highest Steam Shovel Records.

The subjoined table gives the highest daily records of steam shovels, in the Department of Excavation and Dredging, from October 1st to 24th inclusive:

Shovel No.	Date.	Location.	Amount of material removed (cubic yards).	Kind of material.
103	Oct. 8	Mindi............	1,419	rock and earth
112	Oct. 2	Mindi............	1,082	rock and earth
227	Oct. 1	Bas Obispo....	2,160	rock and earth
216	Oct. 18	Bas Obispo....	1,116	rock
220	Oct. 8	Empire.........	1,650	rock and earth
219	Oct. 12	Empire.........	1,580	earth
124	Oct. 7	Culebra.........	2,036	rock and earth
222	Oct. 4	Culebra.........	1,800	rock and earth
209	Oct. 24	Pedro Miguel	2,200	rock and earth
211	Oct. 24	Pedro Miguel	2,280	rock and earth

On October 14, in the Culebra Construction District, Shovel No. 106 was, in an emergency, under steam for 16 hours continuously, and during that period removed 2,508 cubic yards of rock and earth.

Five shovels at the Gatun lock site, during the week ending October 21, moved 30,112 cubic yards, an average of 1,004 cubic yards per shovel per day.

Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dippers of a capacity of 5 cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovels supplied with cars, etc.

A Rebuilt Hopper Barge.

About five months ago steam clapet or hopper barge No. 7 was hauled on the shipways at La Boca to be rebuilt. This barge was built originally at Renfrew, Scotland, in 1885, and upon examination, when on the ways, the hull was found to be in a remarkably good state of preservation, so that most of the rebuilding was confined to the interior of her hull and to the deck houses. A new double furnace Scotch boiler was installed, and the twin screw engines were thoroughly overhauled. These engines, although twenty-two years old, are as efficient and as economical as any compound engine now made, and being of very heavy material, are better than the majority of modern engines for the hard service required. An interesting feature is that not one piece of new pipe has been fitted. All the steam pipes are of copper, and the bilge pipes are of lead. They are still in fine condition, and have been refitted to the new boiler and pumps. The original boiler mountings, which were of brass, were also fitted to new boiler. On her trial trip in Panama bay on October 4, she developed a speed of 10 knots an hour on a coal consumption of 2½ pounds per indicated horsepower, and was immediately put in commission with ladder dredge No. 14.

The total cost of material and labor in rebuilding this barge amounted to $15,000.

Labor Forces.

The skilled force of the Isthmian Canal Commission at the end of the fiscal year 1906 was approximately 2,500 men, and at the end of the fiscal year 1907 it was actually 4,404. In order to provide for this increase of 1904 men, and to supply the vacancies caused by the usual separations, due to sickness, resignations, etc., 3,038 men were brought from the United States during the year. At the end of the fiscal year 1906 there were on the Canal work 500 Europeans and 13,625 West Indians; at the end of the fiscal year 1907 there were 4,317 Europeans and 14,606 West Indians. To maintain this force of laborers and also to provide the Panama railroad a force of about 5,000 men, 6,899 Europeans and 10,947 West Indians were brought to the

NOTES OF PROGRESS.

(Continued.)

Isthmus during the year, an average of 1,500 men per month. The total force of skilled and unskilled laborers of the Isthmian Canal Commission and the Panama railroad on June 30, 1906, was 19,600 and on June 30, 1907, it was 29,446, or an increase of 10,000 men. During the fiscal year 20,884 men were brought to the Isthmus from the United States, Europe, and the West Indies. At the close of the fiscal year 1906, 1,129 houses were available for quartering all kinds of employes, and supplying the building for offices, hotels, messes, kitchens and storerooms. On June 30, 1907, there were 2,208 buildings in use for the same purposes.

At the close of the fiscal year there were 15 hotels in operation for white Americans, supplying meals at 30 cents each, and 18 mess halls for Europeans, supplying board at 40 cents a day, and 23 kitchens for the West Indian laborers, supplying board at 30 cents a day.

The number of meals served during the month of June was as follows: hotels, 197,419; messes, 286,155; kitchens, 456,765, or nearly a million meals for the month.

Long Trip of the "Culebra."

The sea-going suction dredge *Culebra*, built by the Maryland Steel Company at Sparrows Point, Md., for the Isthmian Canal Commission, sailed from that port on October 9. She reported her arrival at Barbados on October 18, where a stop was made for coal. Her next stop will be at Pernambuco, Brazil, thence to Montevideo, Uruguay, Punta Arenas, Argentina, on the Straits of Magellan, and Callao, Peru, at all of which points coal will be obtained and her arrival reported by cable. Her trip of about 12,000 miles will end at La Boca, where she is expected to arrive about January 1. The *Culebra* is a sister ship to the dredge *Ancon*, now doing such good work in the Canal channel in Colon harbor, and their cost was about $375,000 each. The *Culebra* will be used in dredging the channel for the Canal at La Boca.

Information for Steamship Passengers.

In order to facilitate the prompt sailing on schedule time of the Company's steamship from Cristobal, the management of the Panama Railroad Company make the following suggestions to intending passengers:

First—Proper form of transportation must secured. On sailing days, when departure is set for 3 p. m., the agent of the Railroad and Steamship Company will sell tickets at the ticket office on Dock 11, Cristobal, from 10 a. m. until 1 p. m. Steamship passengers should leave the train at Cristobal station. No steamship tickets can be secured at Colon during these hours, nor from any source after 1 p. m. Passengers will not be allowed to board steamships without tickets.

Second—Baggage may be checked from any station through to New York, provided regular tickets are presented. Passengers holding orders on agent at Colon for transportation should check their baggage to Pier No. 11, Cristobal, and after securing their tickets, they will be required to identify their baggage and recheck it to New York. Baggage for state rooms should be checked to Pier No. 11, Cristobal, and claimed, when the steamships stewards will see to its prompt handling to state room. A transfer charge of 50 cents gold for trunks and 25 cents gold for smaller articles will be made for handling baggage between Colon or Cristobal and Pier No. 11.

Third—Passengers will be allowed and expected to board steamships promptly at 2 p. m. and up to 2.45 p. m., during which time the marine surgeon will be on duty. The laws require that all passengers leaving for New York must pass this inspection, and after boarding the steamship, they can not be permitted again to leave the steamship.

If passengers will observe the foregoing, remembering that the hour from 1 p. m. to 2 p. m. must be used for making up the steamship's papers, and that the last fifteen minutes before sailing time must be used for closing such papers, they will have no cause to complain of the late leaving of the steamships.

Fruit and Vegetable Supplies.

The first of the United Fruit Company's steamships bringing fresh vegetables and fruits from New Orleans, under the new arrangement which the Commissary Department has made with that line, arrived at Cristobal on the morning of October 23. The vessel was the *Greenbrier*, and brought about 140 tons, distributed as follows: 65 tons of potatoes, 20 tons onions, 1 ton American sweet potatoes, 13 tons apples 20 tons cabbage, 1 ton grapes, and an assortment of radishes, tomatoes, and other small northern vegetables, amounting to about 20 tons. They were all in excellent condition and were transferred at once from the ship to cold storage, the transfer being accomplished in less than seven hours, and their distribution over the Isthmus was begun immediately. The contract with this line calls for three ships per month, arriving at intervals of ten days, and it is expected that they will keep the Commissary well stocked with an abundance of fresh fruit and vegetables.

New Maps of the Isthmus.

The Division Engineer of the La Boca division, dams and dredging, has recently been instructed by the Chief Engineer to prepare general maps of the Isthmus, on three scales, viz: 1-12000, 1-40000, and 1-100000.

The 1-12000 map will be a complete map of the Canal proper and will extend nearly to the Zone lines, showing all topographic and artificial features, and will be complete in three sheets, approximately 6 feet in length by 4½ feet in width.

The 1-40000 map, one sheet, will cover all the Gatun and La Boca lakes under the approved project, and will be printed in three colors.

The 1-100000 map will cover the entire drainage shed of the drainage district of the Canal, including the Chagres, Rio Grande, Gatun and Trinidad rivers, and will cover some hundred square miles; all these various maps will be printed by the photolithographic process, and distributed to the various departments for official reference.

Congressmen Coming to the Isthmus.

Congressman James A. Tawney, Chairman of the Committee on Appropriations of the House of Representatives, will sail for the Isthmus on the *Colon* from New York on October 31, accompanied by twelve members of the committee and two members of the House and several personal friends. The object of the visit is to become thoroughly informed as to conditions on the Isthmus with a view to fixing the amount of appropriations for future work on the Canal. A full list of the party is appended:

COMMITTEE ON APPROPRIATIONS.

James A. Tawney, Chairman.
Henry H. Bingham, Member.
Leonidas S. Livingston, Member.
Washington Gardner, Member.
F. H. Gillett, Member.
A. S. Burleson, Member.
J. Warren Keifer, Member.
A. L. Brick, Member.
Martin B. Madden, Member.
S. Brundidge, Jr., Member.
John J. Fitzgerald, Member.
Geo. W. Taylor, Member.
Joseph V. Graff, Member.

James R. Mann and H. C. Loudenslager, Members of the House of Representatives.

John D. Cremer, Official Committee Stenographer; James C. Courts, Clerk to Appropriation Committee; F. P. Fellows, Assistant Clerk to Committee; Mr. Gaylor, Secretary to Mr. Brick; Messrs. William H. Laird, W. B. Parsons, J. M. Diment, and Daniel H. Moon.

Secretary Taft in the Philippines.

Secretary Taft arrived at Manila on Tuesday, October 15. His official reception began with a water parade, which was headed by Governor-General Smith, Maj.-Gen. Leonard Wood, Commander of the Division of the Philippine Islands, and Rear-Admiral Hemphill, commanding the third squadron of the Pacific fleet. On landing, the Secretary was escorted to the palace by a detachment of troops and distinguished Americans and Filipinos, and was formally welcomed by the Mayor of Manila and the Governor-General.

On October 16 he formally opened the first Philippine Assembly, the exercise taking place in the National theatre, there being no government building in the city large enough for the purpose. On October 17 a reception was given to him by the Army and Navy Club. On October 18 he reviewed the troops at Fort McKinley, and on October 19 he laid the foundation stone of a public school. On Monday, October 21, he was the guest of honor at a public banquet which was attended by 250 prominent citizens, including the members of the Assembly and the Provincial Governors. On October 22 there was a concert in honor of Mrs. Taft, and a banquet at the Malacanan Palace. On October 24 he inspected the naval depot at Olongapo. On Friday, October 25 he departed on a visit to Baguio, the summer headquarters of the Government, remaining there until Tuesday, October 29. He will hold a farewell reception at the Malacanan Palace on November 2, and on the following day will attend a banquet given to him by Archbishop Harty. On Monday, November 4, a farewell parade will be given in his honor, and he will sail for Vladivostock.

OFFICIAL CIRCULARS.

Railroad Passes.

To All Concerned:

In view of the fact that the amount paid by the Commission to the Panama railroad for transportation of employes has increased $2,000 within the last two months, further restrictions in the issuance of passes will be necessary in order to keep within the appropriation.

Effective November 1, therefore, each employe shall be allowed not to exceed one round trip pass for personal use in any one month.

Geo. W. Goethals,
Chairman.

Culebra, Oct. 19.

Transit Time.

To Heads of Departments and Divisions:

Refering to circular letter of August 19, directing that the amount due an employe for transit-time be paid by the department or division to which the employe is assigned on arrival, regardless of subsequent transfer to another department or division.

This rule will be applied also in cases of transfer from the Commission to the Panama railroad and vice versa, provided the combined service of the employe amounts to thirty days or more.

Respectfully,
Geo. W. Goethals,
Chairman and Chief Engineer,
Isthmian Canal Commission,
President Panama Railroad.

Culebra, Oct. 24.

Special Sick Leave.

To All Concerned:

A number of cases have recently been noted where sick leave with pay, granted to an employe on account of injury sustained in performance of duty, has been charged against the employe's regular sick leave allowance instead of the special thirty days sick leave per calendar year allowed in such meritorious cases. This practice, under certain conditions, is prejudicial to the interests of the employes.

Time lost on account of such injury is to be charged (after being duly authorized) against the thirty days special leave first. If the thirty days special leave is insufficient, any regular sick leave due the employe may be applied to cover additional loss of time on account of the injury.

Respectfully,
Geo. W. Goethals,
Chairman.

Culebra, C. Z., Oct. 22.

Disposal of Waste Material.

All Departments and divisions, so far as their branch of the work is affected, will hereafter be governed by the following regulations covering the disposal of waste material, cleaning and clearing up grounds, roads and streets, disposal of garbage, etc., within the Canal Zone:

(*a*) Old lumber and waste from houses being constructed, repaired or demolished.

(1) Where houses are being constructed, the Division of Building Construction will burn up daily, or as often as possible, shavings and similar waste that is not of use for fuel purposes.

(2) The said Division should notify the Department of Labor, Quarters and Subsistence when and where piles of scrap or old lumber useful as fuel, is to be removed.

(3) In all cases where scrap or old lumber from new houses or houses demolished, approximate a car load, the Department of Labor, Quarters and Subsistence will notify the Division of Material and Supplies that it is held subject to their order It will then become the duty of the Division of Material and Supplies to make disposition through its own employes, or to authorize the Department of Labor, Quarters and Subsistence to take it for their account.

(4) Where a house is to be demolished, care must be taken not to leave old pieces of bent galvanized iron in the vicinity, so that the same may catch and retain rain water.

(5) After the Department of Labor, Quarters and Subsistence have removed all the lumber they desire from any pile of scrap and waste, they shall notify the local Sanitary Inspector, who shall dispose of what remains.

(*b*) (1) It is requested that the Heads of all Departments and Divisions issue orders prohibiting their employes from throwing out empty paint cans, paint kegs, old barrels, boxes, etc., or other materials that can catch and retain rain water, about the places where they are at work.

(2) No Department should allow its workmen to leave exposed to the rain, boxes, barrels, cans, kegs, or other water containers, near the job after same is completed.

(3) Departments using paint kegs, barrels, etc., shall break same up or burn same, when they have no further use for them.

(*c*) (1) All Departments having waste that they can not dispose of shall request the local Sanitary Inspector to furnish as many garbage cans as may be necessary to contain the amount of waste to be removed.

(2) No Department shall leave packing, excelsior, waste, etc., loose on the ground near or about houses.

(*d*) (1) The Department of Labor, Quarters and Subsistence shall do all the necessary policing about camps and quarters, and place waste in garbage cans.

(2) The local representative of said Department shall notify the local Sanitary Inspector when quarters are to be occupied, so that the latter may at once supply any garbage cans that may be necessary.

(3) The local Sanitary Inspector shall empty garbage cans as often as necessary.

Respectfully,
Geo. W. Goethals,
Chairman and Chief Engineer.

Culebra, Oct. 17.

Applications for Married Quarters.

The action of the Commission in regard to applications for family quarters, taken at a meeting on October 5, and published in The Record of last week, was amended at a meeting on October 28, to read as follows:

In view of the large number of applications for family quarters now pending, upon motion, it was

Resolved, That it will be impracticable hereafter to provide other than bachelor quarters for employes who have been hired on the Isthmus and who are not citizens of the United States.

Assignment to Married Quarters.

It has been decided by the Chairman of the Commission that where an applicant for married quarters is offered an assignment to same, and is not ready to accept them, he will be carried as a preferred applicant for thirty days from the date of the first tender. At the end of the thirty days he will be required to either accept or reject the quarters, and if he rejects them, he will lose all rights under his application, and will be required to make a new application and take his turn under the rules.

This rule will go into effect November 1.

Laborers for Married Quarters.

In order that families of Commission employes may be provided with laborers for temporary work about their quarters, arrangements have been made to detail laborers from the utility gangs of the Department of Labor, Quarters and Subsistence for such employment, where this will not interfere with their regular duties; it being understood that these laborers will be paid by the families employing them. The following procedure will govern:

Applications for laborers must be made to Local Supervisors of the Department of Labor, Quarters and Subsistence. Any man assigned to such work must have an order from the office where his time is kept, this order to be given to the laborer, and to show when he was assigned to duty and the rate of his pay per hour; when he has completed his task, the family will sign the order, stating thereon how much time he has put in for them and what he has been paid therefor. This order the laborer will present at the office, and time will be deducted accordingly.

Zone Hunting Privileges.

That the people of the Zone appreciate the favorable opportunities for hunting on the Isthmus is shown by the large number of requests for permits for this purpose which are made of the Treasurer of the Canal Zone (who is also Disbursing Officer of the Canal Commission), at Empire. Such permits are, in accordance with the laws of the Canal Zone, issued by that official, the license fee in each case being $5 American currency, all such permits expiring on the 15th day of June next following the date on which they are issued.

Before permits are granted, involving as they do the privilege of carrying loaded firearms, although not in concealment, the matter in each case is referred to the Chief of Police of the Zone, for investigation as to the character and standing of the applicant, with view to ascertaining whether or not he is a proper person to be entrusted with the privilege.

Hunting permits issued by the Canal Zone Treasurer cover, of course, Zone territory only, and do not apply to territory of the Republic of Panama.

Removal of Insane Patients.

The insane patients of the Zone were transferred on Thursday and Friday last from Miraflores hospital to the new insane wards which have recently been completed at Ancon hospital. This task, which gave promise of being a troublesome one, because of there being a considerable number of violent patients, was carried out without disturbance. Dr. Grosbeck Walsh, the superintendent of the asylum, was in charge, and in addition to the staff of attendants, the Police Department, represented by seven officers, assisted in the transfer.

Special trains with two coaches each, were run for this purpose over the Panama railroad, one on Thursday, the 24th instant, when the women patients were removed, and another the following day, which carried the male patients. All were taken from the trains to wagons and carried to the hospital, the United States mail wagon with its enclosed sides being pressed into service for the violent male patients. There were 121 patients transferred, of whom 45 were women (all but one insane), and 76 men, all insane.

New Transient Rates at Hotel Tivoli.

Effective November 1, the following transient rates will be in force at the Hotel Tivoli:

Grade No. 1—Room, one person in room, $1.50; two persons in room, $2.25.

Grade No. 2—Room, one person in room, $2.50; two persons in room, $3.50.

Grade No. 3—Room, one person in room, $3.50; two persons in room, $5.

Guests in grade No. 1, No. 2 and No. 3 rooms have the use of public bath rooms located at convenient points on each floor.

Grade No. 3 B—Room with bath, one person in room, $4.50; two persons in room, $6.50.

Meals: Breakfast, 50 cents; luncheon, $1; dinner, $1.25.

Employes of the Isthmian Canal Commission will be granted a reduction on these rates as follows:

Room in grade No. 1, 33⅓ per cent; in grades No. 2, No. 3, and No. 3 B, 40 per cent.

Meals: Breakfast, 50 cents; luncheon, 50 cents; dinner, $1.

All payments at transient rates by an employe must be from hotel coupon books.

SOCIAL LIFE OF THE ZONE.

Preparations for Hallowe'en Parties made by the Women's Clubs.

The work of the Zone women's clubs is going on with unabated interest and enthusiasm. Although the organizations are still in the formative period, it is the general impression that there is much work to be done as well as an interesting social life to be developed through their means. Hitherto the interests of the women have been so widely divergent that it requires a little time to become accustomed to the new idea, to find the best direction for club effort, and to get things into smooth running order. But the difficulty is disappearing rapidly and the clubs are beginning to make their work felt in every community where they have been organized.

The chairmen of the various departments of the Ancon club have been named and are considering their committees. Miss Russell, chairman of the philanthropy department, feels that she has a large field for work among the Jamaican negro women, and hopes to organize a visiting committee for the purpose. Another field of activity is suggested in the preventing of cruelty to animals. It has not yet been learned what steps may be taken in this work, but it is felt that every woman and club member should hold herself responsible for the treatment of the dumb brutes in her own community.

A meeting has been called of the officers and chairmen of departments on October 30 when further plans will be discussed and action taken on several important points. It is desired that a permanent club room should be arranged for in which classes and meetings could be held. This will be taken up at the business meeting. Some inquiries have been made with regard to the Spanish classes. Particular interest is felt in this study department and it is thought that it will form one of the leading features of the club. The educational department will arrange for some interesting papers to be read before the club within a short time.

The Empire club is giving an allowance of two weeks from October 15 for the admission of charter members as many of the women of the community had not had sufficent notice regarding the organization. The meeting on October 24 was well attended, and much enthusiasm manifested. The membership is increasing in a most gratifying manner. The club will give a Hallowe'en party in the entertainment hall of the Commission club house.

A motion prevailed that the president should call two business meetings preceding the next regular meeting for the purpose of perfecting the organization. Mrs. J. F. McTyier was appointed chairman of the music department. Plans are being discussed concerning the organization of Spanish classes and other educational features.

The Gatun club held its regular meeting on October 16, the president, Mrs. Chester Harding being in the chair. A general outline of work was discussed which promises to be very interesting. It was decided that the club should give a Hallowe'en party the nature of which has to be determined at a later meeting. Mrs. J. L. Elliott was elected chairman of the entertainment committee to be assisted by Mrs. Houston and Mrs. Carty.

The following changes have been made in the officers of the club at Gorgona: President, Mrs. Frank Morrison; vice-president, Mrs. R. C. Goodale; secretary, Miss Ethel Hayes; treasurer, Mrs. Calvit, and committees appointed as follows: Visiting committee for the next three months, Mrs. Eason, Mrs. P. West, Mrs. Van der Heurk, Mrs. Calvit, Mrs. Seevt, Mrs. Heukle, Mrs. Preison, Mrs. Sykes, and Miss Faxon; sick committee, Mrs. McConehay, Mrs. Jack Fogerty, Mrs. Preison, Mrs. Heukle, Mrs. Collins.

The club has decided to hold its business meetings every two weeks on Thursdays.

The Pedro Miguel club will give a "Ghost party" on Hallowe'en night. There is a greatly felt need of social diverson in this community and the club is making every effort to meet the situation. Meetings are regularly held and plans for work are being constantly discussed.

The Paraiso club will hold an informal reception on Hallowe'en night in the Commission hotel. Light refreshments will be served. The club meeting on the 31st will be omitted, the ladies coming together instead for the purpose of decorating the room for the evening. Business meetings are held on the first and third Thursdays, social meetings on the second and fourth Thursdays of the month.

Owing to the frequent change of residence by families in the Zone, it was decided at the meeting of the delegates that any woman who is a member of one club can, upon her removal, be admitted to the club in the station where she may be placed without further formalities than presentation of a letter from the president of the club of which she was last a member.

In response to requests for copies of the photographs of the delegates and club members taken at the Hotel Tivoli on October 1, it has been ascertained that these may be obtained through orders sent to the chief draftsman in the office of the Chief Engineer at Culebra, at 20 cents (gold) each. It is desirable that the president of each club should ascertain the number of copies required and club orders should be sent in, as these will receive more prompt attention than can be given to private or single orders. The completed photographs embraced in any order are forwarded to Mr. Hood Hudson in the office of the Chief Engineer at Culebra who delivers the same upon receipt of the price.

The ladies of the Cristobal Woman's Club are entering enthusiastically upon their work. A meeting was held on October 26 with an attendance of about fifty ladies. The feature of the afternoon was an address by Miss Emily C. Thompson, head nurse of the Colon hospital, on the subject of "Home Nursing." Miss Thompson gave practical illustrations of correct methods for the treatment of injuries and sudden indispositions, one of the women present kindly offering her assistance as "patient" for emergency treatment.

At the close of the address a general discussion followed and the speaker answered a number of questions called forth by the interest aroused by her remarks. Tea was then served, after which the meeting was adjourned. The club will hold a business meeting on October 30.

PERSONAL.

Commissioner Major Wm. L. Sibert and family, and Commissioner H. H. Rousseau will return to the Isthmus on the *Finance* which sailed from New York on October 25.

Mrs. M. B. Irwin, head nurse at the Ancon hospital and Dr. H. Eno, District Physician at Cristobal, were among the passengers on the *Advance* which sailed on October 22.

Among the passengers returning to the Isthmus on the *Dunottar Castle*, which arrived at Cristobal on Sunday, October 27, were Judge and Mrs. H. A. Gudger and daughter; Mrs. Edgar Jadwin, son and daughter; Mr. and Mrs. M. K. Jones of Empire, and Dr. and Mrs. Bates of Ancon Hospital.

Tivoli Club Dances.

Owing to the fact that the Commercial Club of Panama has announced the intention of giving a dance on the 2nd of November, the Board of Governors of the Tivoli Club has decided to postpone the dance which would ordinarily have been given on that date and has resolved, if the necessary arrangements can be made, to give a reception and dance in honor of the Appropriation Committee of the House of Representatives, which committee is to visit the Isthmus in a body early in November. The dance will take place about the 16th of November—exact date to be announced later.

The second dance in November has been set for the night before Thanksgiving, November 27.

MALCOLM ELLIOTT,
Secretary.

Ancon, October 10

Isthmian Baseball League.

A meeting of the managers of the baseball teams comprising the Isthmian Baseball League was held Sunday, October 27, in Ancon. Applications for entry were submitted by several clubs not now in the League. It was decided that a meeting be held on Sunday, October 3, at 11 a. m., in the office of W. E. Russell, Ancon, to consider applications from teams desirous of joining. Any club or town on the Isthmus wishing to enter the league should file its application at this meeting, together with a list of prospective players, and a deposit of $100 gold, either cash or certified check, as a guarantee. It will be decided at this meeting whether the league shall consist of six or eight clubs. Applications for entry may be filed in advance of this meeting with Dr. A. B. Herrick, vice president, or W. E. Russell, at Ancon. No application will be considered unless the above mentioned requirements are complied with.

W. E. RUSSELL,
Secretary, pro tem.

Ancon, C. Z., Oct. 28.

Concert.

By the I. C. C. Band at Tivoli Hill, C. Z., Sunday, November 3, at 3 p. m.:

PROGRAM:

1 March	*Chateau Gontier*	Fischlin
2 Selection	*George Washington, jr.*	Cohan
3 Waltz	*Santiago*	Corbin
4 Fantasia	*Hungarian*	Tobani
5 Trombone solo	*Young America Polka*	Levy
	JAMES M. GILLIES.	
6 Morceau charateristic	*The Chirpers*	Frank
7 Overture	*Morning, Noon and Night*	Suppe
8 Novellette	*Jasmine*	Bendix
9 Patrol	*The Blue and Grey*	Dalbey
10 March	*The Heart of Rome*	Brooks

CHAS. E. JENNINGS,
Musical Director.

A CANAL OPTIMIST.

Views of a Recent Visitor to the Isthmus.

When John Y. Boyce, United States Attorney for the First District of Alaska, left Juneau about two months ago for Panama to spend there a part of his vacation, after an absence from the Isthmus of thirty-one years, says the *New York Tribune* of Oct. 16, he was a pessimist regarding the state of affairs on the Canal Zone. Mr. Boyce is now in New York on his way back to his post, but he is no longer pessimistic; in fact, after a personal investigation of the progress of the work on the great waterway he is a decided optimist.

"I expect to see ships going through the Canal in five years," said Mr. Boyce yesterday, "if the present gait is continued."

Mr. Boyce spent a long time on the Isthmus thirty-one years ago and the knowledge gained at that time enables him to make an intelligent comparison between the work done by the French and that done by the American engineers. Mr. Boyce said:

"I had thought the United States paid too much when it gave the French Canal Company $40,000,000, but I have changed my opinion, I saw what the United States got for the money and I think it was a bargain.

"I spent most of my time on this trip at Panama city. The first thing that impresses one on arriving there is the fine sanitary condition. There are no more pools of stagnant water where the yellow fever mosquito used to make its home. The mosquito, too, has been eliminated. In six months there was only one case of yellow fever, and that was brought in from outside.

"The engineers have been doing real work on the Canal, and the volume of work is increasing by geometrical progression. There are 168 locomotives in use in carting away trains of dirt and fulfilling other purposes, and in Culebra Cut there are forty-two steams shovels in use. I have examined the work on the Pennsylvania Railroad terminal, and also that of the New York Central, and I am entirely impersonal when I say that the steam shovels are handled more expeditiously and better in Panama than they are on either of those big jobs.

"Then, too, there is noticeable a spirit of good feeling among the working corps. The organization is excellent, and the men work with the appreciation, apparently, that they are identified with one of the world's greatest projects. An increase of the efficiency of the working force is the rapidity with which the loading is done. It takes on the average thirty-five minutes to load a train of ten cars with dirt.

"The American engineers have succeeded in solving the problems presented by the Chagres river and Culebra, which proved stumbling blocks to the French engineers. The substitution of the American locomotives for the French engines has also increased the output decidedly.

"The hospital for the sick and disabled workers is an institution to be proud of. It consists of fifteen or twenty buildings, all with modern equipment. It is surrounded by a park facing the Panama side. Men permanently disabled may, if they choose, remain there indefinitely or accept passage to their homes.

"I have seen the criticisms of Miss Gertrude Beeks, of the National Civic Federation, but I could observe none of the glaring faults that she points out. My trip to the Isthmus has converted me from a pessimist to an enthusiastic optimist.

"The visit of President Roosevelt to the Isthmus marked an epoch there, and did much good. The late of every happening is now placed at so long before or after 'the President was here.'"

Mr. Boyce discussed also the work being done on the Isthmus by the Young Men's Christian Association. He said:

"The Young Men's Christian Association in the Canal Zone has a membership of nearly two thousand, and occupies four large club houses erected by the Canal Commission. The membership is composed of American young men, all of whom are employes of the Canal Commission. The club houses contain gymnasiums, billiard rooms and libraries, and are surrounded by large verandas. In the evening they are thronged with young men. One of the officials of the Canal Commission recently said that no money being spent on the Isthmus was producing better results than that for the erection of these club buildings and for the maintenance of the work in them."

Cristobal Union Church.

During the first week of September there was organized at Cristobal a Union Church for the purpose of carrying on organized religious work in that community. Realizing the undesirability of organizing and carrying on work on denominational lines the representatives of the various denominations decided to unite and work together to develop and maintain an interest in religious life and work. The following officers were selected: President, Mr. Max Dyer; vice president, Mrs. M. C. Rerdell; secretary, Dr. Hearne; treasurer, Mr. Hugh T. Kinney; musical director, Mr. W. F. Christain; pastor, Mr. Wm. Pearn; general committee, Mr. W. G. Tubby, Judge T. H. Brown, Mr. W. A. Graham, Miss Emma Bade, Mr. and Mrs. Chas. Hagemann, Mrs. John Burke, Mr. McCormick, Mr. P. C. Baker, Mr. and Mrs. E. L. Baker, Mrs. Max Dyer, Mr. M. J. Stickel, Mrs. Hermon, Mr. Wassal. The officers of the organization form the executive committee. On Sunday, October 20, the Sunday school had 63 in attendance. Two services were conducted simultaneously at 10.30, the preaching attended mostly by adults and the "Children's Church" attended by the young members of the community. The attendance at both these services proved that the residents of Cristobal are thoroughly interested in the church work.

In addition to the work described clubs have been organized for the boys and girls who are too young for either the Y.M.C.A. or the Women's Club and these meet twice weekly. Mrs. Pearn has charge of this work.

Unidentified Package.

A package has been received by R. C. Shady, storekeeper at the Ancon corral, containing wearing apparel and sundries and a book—"Gardenier's Ready Help for Locomotive Engineers," with name "Louis Dent" on the front leaf. There is no outside mark to identify the package. The owner can obtain same by applying to Mr. Shady.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Oct. 26, 1907.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Ammon, H. C.
Beach, Frank A.
Bennett, Robt. V (2)
Coyne, John (2)
DeChabert, Mrs. S
Drake, Col. L. D.
Earle, H. E.
Eggers, L. E.
Ennis, A. W.
Fitzpatrick, Thos. E.
Flaherty, Michael
Gardner, F.
Hadley, J. F.
Harrison, Sam
Henderson, Percy
Irish, E. S.
Karner, W. J.
Keefe, John W.
Lahnmesser, A.
Leer, John M.
McCandless, Roy
McDonald, Chas.
McEwan, John
McGibney, Tom
McKinley, Henry
Oldfield, Mrs. Annie
Powderly, J. L.
Rayburn, Harry
Reuter, Harry
Richards, A. R.
Scherneck, Rudolph
Tainsh, Peter
Thacker, R. B.
Walling, Earl
Willson, Lewis E.

Arterburn, John H
Bramhall, Harry
Brooke, Mortimer L.
Drysdale, Thos.
Duffy, M.
Erion, C. E.
Everist, A. C.
Ewen, Wm. J. (3)
Ford, Logan S.
Full, Richard E.
Gibson, Philip B.
Humphery, Frank
Huncheskie, Lawrence
Johnson, Oscar
Kercheval, Thos. A. jr.
London, Gilbert L.
Mason, Aaron O.
Matthews, L.
Mead, Walter B.
Mickle, Mrs. Lewis B.
Putnam, Jas. Lee
Ridley, Miss Albertic
Rowell, G. M.
Shaw, Sherman E.
Toll, Albert C.
West Coast Trading Co.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

EMPIRE.

The Culebra Y. M. C. A. Minstrels presented their entertainment on Tuesday evening, Oct. 22, which was highly enjoyed.

On Thursday evening Frank R. Roberson delivered his lecture on "The Land of the Midnight Sun." It was graphically illustrated by two hundred hand-painted stereopticon slides in natural tints and colors. It was instructive entertaining and humorous.

The Empire bowling team holds first place in the league after gaining three "straights" from Cristobal on the evening of Oct. 19.

CRISTOBAL.

Robert G. Goodman, formerly social and employment secretary of the Twenty-third Street Branch of the New York Y. M. C. A., has begun his duties as the assistant secretary of the Cristobal Y. M. C. A.

The night school classes will open on Monday, November 11. The following studies will be offered: Business arithmetic, English grammar and composition, mechanical drawing, stenography and typewriting (beginning and advanced), Spanish (beginning and advanced).

Other classes to be organized if there is sufficient demand for them are: Business law, first aid to the injured, elements of music, bookkeeping.

The use of the public school building has been granted for these classes. A tuition fee of $5 for twenty lessons is charged to cover the cost of instruction and other incidental expenses.

BOWLING SCORES FOR THE WEEK.

Team.	Games.	Per cent.
Stimson	6	162
Barte	16	162
Gilmore	12	156
Strong	9	153
Culbertson	8	151
Murray	5	151
Dillon	11	150
Leonard	5	149
Knowlitz	8	142
Robertson	14	140

Cristobal Social Institution.

The Social Institution building, erected at Cristobal by the Isthmian Canal Commission, was opened for use on October 27. The Rev. W. Pearn presided at the exercises and speeches were made by Rev. E. J. Cooper, W. F. Christian, M. J. Stickel and others. The Social Institution will be in the care of Staff Captain James Simons of the Salvation Army, and among the features will be a reading room for the general public.

The La Boca Foot Ball Team.

A foot ball eleven recently organized at La Boca is meeting with much success, enough men having signified their intention of joining to form two teams, and practice games are now being held. A game on the morning of Thanksgiving Day is desired with some other eleven on the Isthmus, and all interested are requested to communicate with Mr. G. R. Dempster, La Boca, C. Z., who will furnish full particulars.

Disbursements of explosives at Culebra for the month of September were as follows: 98,850 pounds of dynamite; 43,800 feet triple tape fuse; 12,600 detonators; 17,750 electric exploders.

Arrested for Murder.

The police at Tabernilla last Saturday, the 19th instant, apprehended John Hughes, a white American who is wanted by the sheriff of Osceola county, Florida, on a charge of murder in the first degree. He is at present detained at the Ancon police station, awaiting the arrival on the Isthmus of the sheriff or his authorized representative, with the necessary extradition papers to take him back to Florida for trial.

FINANCES OF THE CANAL

Appropriations and Expenditures Down to June 30, 1907.

The subjoined tabulated Statement of Appropriations and Expenditures shows that $79,608,568.58 have been appropriated for the construction of the Canal between the Atlantic and Pacific oceans, and that of this amount, at the close of the fiscal year, a total of $48,285,110.37 was expended. The project adopted by Congress was estimated by the Board of Consulting Engineers to cost $139,705,200.00, exclusive of sanitation and expenses of the Zone Government; the estimates submitted did not contemplate or provide for waterworks, sewers and paving in Panama and Colon, made necessary to secure improved health conditions, nor is any provision made for the re-equipment of the Panama Railroad. Under the circumstances, the subjoined table is prepared with a view of showing the amount expended for the construction of the Canal on estimates under which the Commission is operating:

APPROPRIATIONS.

June 28, 1902—Canal connecting Atlantic and Pacific Oceans			$10,000,000.00	
Dec. 21, 1905—Canal connecting Atlantic and Pacific Oceans			11,100,000.00	
Feb. 27, 1906—Material purchases in United States			1,000,000.00	
Miscellaneous expenses on Isthmus			400,000 00	
Panama Railroad and second track			200,000.00	
Isthmus pay-rolls			2,000,000.00	
Salaries and incidental expenses in United States			75,000.00	
Equipment purchases			1,565,786.00	
Re-equipment Panama Railroad			650,000.00	
Total available appropriations to June 30, 1906				$26,990,786 00
June 30, 1906—Expenses in United States			$ 368,242.69	
Salaries		$ 251,063 33		
Incidental expenses		117,179.36		
Construction, engineering and administration			21,018,537.24	
Pay—Officers and employes		$2,600,512.00		
Pay—Skilled and unskilled labor		8,650,661.00		
Material purchases		9,032,814.24		
Incidental expenses on Isthmus		734,550 00		
Civil administration			968,200 00	
Pay—Officers and employes		$600,000 00		
Pay—Skilled and unskilled labor		50,000.00		
Material and incidental expenses		318,200 00		
Sanitation			2,101,435.15	
Pay—Officers and employes		$600,000.00		
Pay—Skilled and unskilled labor		679,068.00		
Material and incidental expenses		822,367.15		
Re-equipment of Panama Railroad			1,000,000.00	
Total appropriation, year 1907				25,456,415.08
March 4, 1907—Expenses in United States			253,000.000	
Salaries		$184,000.00		
Incidental expenses		69,000.00		
Construction, engineering and administration			20,366,000.00	
Pay—Officers and employes		$2,772,000 00		
Pay—Skilled and unskilled labor		7,990,000 00		
Material purchases		9,046,000.00		
Incidental expenses on Isthmus		558,000.00		
Civil administration			825,000.00	
Pay—Officers and employes		$486,000.00		
Pay—Skilled and unskilled labor		50,000.00		
Material and incidental expenses		289,000.00		
Sanitation			2,034,000.00	
Pay—Officers and employes		$766,000.00		
Pay—Skilled and unskilled labor		468,000.00		
Material and incidental expenses		800,000.00		
Re-equipment Panama Railroad			1,385,000 00	
Redemption Panama Railroad bonds			2,298,367.50	
Total appropriation, year 1908				27,161,367.50
Total appropriations				$79,608,568.58

EXPENDITURES.

Construction of Canal			$29,782,682.60	
Buildings			5,862,384.90	
Panama waterworks, sewers and paving			1,217,445.52	
Colon waterworks, sewers and paving			763,302.30	
Panama Railroad advances			1,826,683.50	
Total construction and engineering				$39,452,498.82
Government of the Canal Zone			1,431,151 71	
Buildings			388,101.40	
Zone highways			499,023.70	
Total civil government				2,318,276.81
Sanitation and hospitals			4,799,642.04	
Buildings			750,565.96	
Total sanitation				5,550,208.00
Loans to Panama Railroad			1,631,257.34	
Purchase of Panama Railroad stock			157,118.24	
Purchase of Santa Rosa and Tivoli Hill properties			56,882.96	
Balance due by laborers for their transportation			210,694.45	
Bills rendered against Panama Railroad and others, but uncollected			465,988.52	
Collections from individuals and companies remitted to United States Treasurer as miscellaneous receipts			1,949,699 91	
Labor furnished and material sold to Panama Railroad, the Republic of Panama, Commission employes, and other allied interests			1,950,952.28	
Cash and uncollected bills at various hospitals			2,312 71	
Total miscellaneous			6,422,906.41	
Less—				
Amount due individuals and companies for claims allowed but not paid on this date		$505,375 18		
Amounts unpaid on pay-rolls		1,431,746.21		
June rolls	$1,290,419 14			
Prior months	141,327.07			
Total amount of collections made and bills rendered and included in expenditures, which have been or will be deposited in the U. S. Treasury as miscellaneous receipts		2,873,146.63		
Value of French material charged to the work or sold to individuals and companies which has been credited to purchase price of Canal		648,511.65	5,438,779.67	
Net miscellaneous				934,126.74
Total expenditures				48 285,110 37
Balance available July 1, 1907				31,323,458 21
Total				$79,608,568.58

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Regular Army and Navy Union.

THE CANAL RECORD:

The first meeting of Admiral Walker Garrison No. 40, Regular Army and Navy Union, of the United States of America, was held in Municipal Building, Empire, C. Z., on Sunday, October 20, at 2.30 p. m., where the men were initiated, the garrison instituted and officers appointed, after which the necessary business was transacted.

There will be a meeting at the above place on Sunday, November 10, 1907.

Applications can be procured by writing the undersigned at any time.

J. H. VATERLUS, L. E. HERMAN,
Aide de camp, A. I.G., R. A. & N.U., U. S.
Gorgona, C. Z.

United Spanish War Veterans.

THE CANAL RECORD:

Having arrived on the Isthmus of Panama, I will endeavor with the aid of other men to form a camp of the United Spanish War Veterans for all men who have served in the Regular Army, Navy, Marine Corps, or Volunteer army during the Spanish-American war from May 1, 1898, to June 1, 1902, and who have honorable discharge papers for such service. Information will be given upon request.

JOHN H. VATERLAUS,
Asst. Insp. Gen., U.S.W.V.,
Gorgona, C. Z.

LESTER E. HERMAN,
Aid-de-Camp, Empire, C. R.

Cristobal Water.

THE CANAL RECORD:

The water at Cristobal has a very disagreeable odor, and has been so for some time. We have to boil all the water we use. Why can not we have distilled water as well as other places along the line?

ISAAC R. POTTS,
Plumbing Department.

Cristobal, C. Z., Oct. 8.

[The above letter was sent to the Division of Municipal Engineering for comment, and the following reply was received:]

Replying to the communication from Isaac R. Potts, a plumber at Cristobal, relative to disagreeable odor noticeable in water for some time:

This office is in receipt of a report that this is not now apparent. At certain times of the year disagreeable odors will be noticeable in practically any tropical water. While this is objectionable it is not injurious to health, and we are of opinion that it is due to the comparatively small amount of water which is used in Colon and Panama. Weekly flushings of all hydrants is one remedy which we are applying, at the same time using every effort possible to eradicate vegetable matter from the reservoirs.

Water at Mount Hope reservoir is considered by Dr. Kellerman, physiologist in charge of the Plant Industry of the Department of Agriculture, to be the best water furnished any town on the Isthmus. In his report to the Chief Engineer it is stated that the Colon water compares favorably with that supplied the cities of Baltimore, Md.; Charleston, S. C.; Denver, Colo., and Washington, D. C.

The Department of Health have never considered the distillation of water at Colon necessary. The watershed is uninhabited, and it is impossible for foreign matter to contaminate the water.

We consider that the filtration plant now in operation, which removes all matter in suspension, as well as motile crustacea—which though harmless produce to some extent this unpleasant odor—will in a short time entirely relieve the situation.

COMMISSARY DEPARTMENT.

Statement of Its Organization, Methods of Operation and Supplies Furnished.

The Commissary Department, which has been organized for the benefit of employes of the Isthmian Canal Commission and Panama Railroad Company, is operated by the Panama Railroad Company. Mr. John Burke is manager of the Commissary Department, reporting directly to the General Manager of the railroad. This department, the headquarters of which are at Cristobal, carries 524 employes on its rolls. The following is a brief outline of the organization as it exists to-day. At Cristobal there are:

Commissary, which is in charge of a storekeeper, where dry goods, hardware, groceries, etc., are sold.

Main warehouse, where only unbroken lots of goods are handled. There are several divisions to the main warehouse, one handling dry goods, one hardware and one groceries, each of which is under a sub-storekeeper who reports to the storekeeper in charge of the main warehouse. In addition there are "shipping dry goods" and "shipping groceries" divisions, which handle broken packages of goods, in a wholesale way, which are shipped to patrons along the line, instead of being purchased directly from the local commissary.

Cold storage plant, where cold storage products are handled, which includes fresh meats, potatoes, onions and other perishable vegetables, butter, eggs, etc.

Ice plant and bakery, which supply all demands for these commodities made by Commission and Panama railroad employes throughout the Zone.

Laundry plant, which provides for the needs of the employes of the Commission and Panama railroad for service of this character.

Printing plant, which is at present doing all the printing work required in the operation of the Commissary, as well as that of the Panama railroad.

Branch commissaries are located at the following points: Gatun, Bas Obispo, Empire, Rio Grande, Paraiso, Gorgona, Tabernilla, Culebra, Las Cascadas, Pedro Miguel.

There is an additional commissary building being constructed at East La Boca, which it is expected will be opened within a short time.

Each of these branch commissaries is in charge of a bonded storekeeper and carries as full a line of supplies as is carried in the main warehouse at Cristobal. The line commissaries are looked after by a traveling storekeeper, whose duty it is to visit them frequently and investigate any complaints made. It is also the duty of the traveling storekeeper to see that commissaries are kept clean and in an orderly manner at all times. He reports, of course, to the manager, who is, in this way, enabled to keep in close touch with the several commissaries throughout the Zone.

A supply train leaves Cristobal at 4.30 o'clock each morning, and make deliveries of cold storage goods, ice, laundry and bread, at all points along the line of the Canal, arriving at Panama about 8.50 a. m. Deliveries at points outside of Cristobal, from this train, as well as from the several commissaries located along the line are made under the direction of the Department of Labor, Quarters and Subsistence.

The majority of the supplies issued by the Commissary Department are purchased in the United States, through purchasing agents in New York and New Orleans. Local purchases are made on the Isthmus of such goods as it is impossible to purchase in the United States, including yams, sweet potatoes, green vegetables, etc., which are grown on the Isthmus, and which are used by hotels, hospitals, and married employes. Articles necessary for the use of European laborers, which could not be purchased in the United States except at a prohibitive cost are purchased abroad.

In determining the selling price of Commissary supplies, to the net cost of same delivered on the Isthmus, is added a uniform percentage sufficient to cover the cost of handling, deterioration, selling, etc., which percentage averages about 20 per cent.

Monthly price lists are issued, covering all supplies, except groceries, giving a description of the articles, stock number and price, so that there is very little chance of a careful purchaser being overcharged. Price lists covering groceries, and other similar supplies, are issued more frequently. A perusal of the monthly price list will show that the prices of commissary supplies are lower, in a great many cases, than are the retail prices for the same goods in the United States.

Commissary Prices.

For week ending Oct. 26:

FRESH MEATS.

		Price. cts.
Beef, sirloin, roast	per lb...	†25
Beef, rump, roast	do	†25
Beef, Porterhouse	do	†25
Beef, rib-roast, short-cut (not under 3½ pounds)	do	17
Beef, rib-roast, second-cut	do	15
Beef, chuck-roast	do	12
Beef, soup	do	7
Beef, stew	do	10
Beef, corned	do	10, 12, 14
Beef, corned, sirloin butts, all lean	do	16
Beef, corned, fancy boneless brisket	do	18
Steaks, sirloin	do	†25
Steaks, Porterhouse	do	†25
Steaks, rump	do	†25
Steaks, tenderloin	do	22
Steaks, round	do	12½
Veal, cutlets	do	†23
Veal, short-cut chops	do	†22
Veal, loin	do	†14
Veal, entire forequarters	do	†10
Veal, for stewing	do	†10
Mutton, entire forequarters,	do	10
Mutton, short-cut chops	do	19
Mutton, leg	do	17
Lamb, for stewing	do	11
Lamb, entire forequarters	do	11
Lamb, short-cut chops	do	27
Lamb, legs	do	24
Pork, cuts	do	20

MISCELLANEOUS.

Livers, beef	per lb...	9
Livers, calf	apiece...	50
Sausage, pork	per lb...	16
Sausage, Frankfurt	per lb	17
Sweet Breads, veal	do	$1.20
Sweet Breads, beef	do	25
Sausage, Bologna	do	13½
Oysters, ½-gallon kegs	each...	70

POULTRY AND GAME.

Chickens, dressed (milk-fed).	each...$	1.25
Fowls	do	*85
Turkeys	per lb...	26½
Broilers, frys (chicken)	each...	80
Squabs	do	35
Ducks (fatted)	do	1.45
Eggs, fresh	per dozen	†35

CURED MEATS AND LARD.

Bacon, strips per lb.	per lb...	23
Bacon, English breakfast, slic'd	do	§26
Ham, sugar-cured, sliced	do	§25
Ham, one-half (for boiling)	do	§20
Ham, Yorkshire (imported)	do	25

DAIRY PRODUCTS.

Butter, prints, prime quality.	per lb...	†40
Cheese, Roquefort.	do	45
Cheese, Young America	do	22
Cheese, Swiss	per lb...	30
Cheese, Gouda	do	30
Cheese, Cheddar loaf	do	32
Cheese, Edam	each...	90
Milk, Briarcliff Farm	per quart	**25

FRUITS AND VEGETABLES.

Oranges	per dozen	12
Apples	per lb...	†9
Limes	per hundred	30
Bananas	per dozen	5
Peaches	per lb...	13
Grapes	do	8½
Pears	do	†13
Grape Fruit	each...	3
Celery	per bunch	18
Cucumbers	per lb...	†12
White potatoes	do	3
Lettuce	do	†17
Onions	do	2
Cauliflowers	do	†9
Tomatoes	do	5
Yams	do	2½

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*Indicates reductions from last list.

† Indicates advance on last list.

** Indicates 5 cents allowed for return of bottle.

§ Sold only from Cold Storage and not from Commissaries.

NOTICE OF PRICE CHANGES.

		Old Price. cts.	New Price. cts.
Pears, 1-gal. tins	per tin	65	78
Milk, sterilized, Fussel's Green Butterfly	do	8½	8½
Ritter's currant jelly, 3-lb. jars	per jar	65	50
Sen-Sen chewing gum	per box	70	60
Peters' milk chocolate, ¼-lb. pkg	per pkg	13	15
Turkish towels, stock No, 35,242	each..	30	22
White duck pants, No, 904b, stock No. 34,623	pair	$1.25	1.20

NEW ARTICLES.

		Price cts.
Laces, shoe, tubular, black, No. 1739, stock No. 37,569	pair..	1
Laces, shoe, tubular, tan, No. 190, stock No. 37,571..	do	2
Laces, shoe, tubular, white, No. 3401, stock No. 37,572	do	2
Shoes, molders', fire-proof, stock No. 37,574	do	2.25
Shoes, men's, tan, Elk. Teck blu. Oxford C, stock No. 37,571	do	3 75
Shoes, men's, tan, Elk. Teck blu. Oxford D, stock No. 37,582	do	3.75
Shoes, men's, tan, Elk. Teck. blu. Oxford E. stock No. 37,583	do	3.75
Shoes, men's, wax calf, Teck blu. Oxford C, stock No. 37,584	do	3.70
Shoes, men's, wax calf, Teck blu. Oxford D, stock No. 37,585	do	3.70
Shoes, men's, wax calf, Teck blu. Oxford E, stock No. 37,586	do	3.70
Shirts, fancy drill, negligée, No. 417, stock No. 37,588..	each.	40
Collars, men's, linen, assorted styles, stock No. 37,591	do	12
Strops, razor, swinging, stock No. 37,626	do	35
Caps, silk, assorted patterns, No. 1140, stock No. 37,627	do	80
Caps, golf, assorted patterns, No. 1154, stock No. 37,628	do	50
Tongues, ox, pickled	per lb..	13
Chocolate, Fry's, fancy boxes, No. 2108	per box.	66
Chocolate, Fry's, fancy boxes, Nos. 3020, 3030, 2938, 1028	do	20
Chocolate, Fry's, fancy boxes, Nos. 4357, 4257, 4359	do	5
Chocolate, Fry's, fancy boxes, Nos. 2605, 2581, 2574	do	32
Chocolate, Fry's, fancy boxes, Nos. 2210, 2211, 2236, 2239, 2216.	do	50
Chocolate, Fry's, fancy boxes, No. 3663	do	10
Chocolate, Fry's, fancy boxes, No. 1957	do	77
Chocolate, Fry's, fancy boxes, No. 1620	do	1.68
Chocolate, Fry's, fancy boxes, 2361	do	12

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ISTHMIAN CANAL COMMISSION

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Maj. Wm. L. Sibert, U. S. A., Culebra.
Mr. H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
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Mr. Joseph Bucklin Bishop, Secretary, Ancon.

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H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
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E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
E. H. Hale, Chief Clerk.
Geo. L. Campen, Water Commissioner, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

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H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
Acting Prosecuting Attorney: Thomas E. Brown, jr., Ancon.
Translators: F. H. Sheibley and Charles M. Brown.
M. C. Kerdell, Senior District Judge, Culebra.
Thomas E. Brown, jr., District Judge, Cristobal.
J. M. Fernandez, District Judge, La Boca.
R. B. Myers, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

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Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry C. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

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R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
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Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Sentence of E. F. Dominick.

E. Fletcher Dominick, who at the time was steward of the Gatun hotel, was arrested and tried on September 5 last for stealing hotel books and selling them through other persons. He was convicted and sentenced to nine months' imprisonment for larceny, upon the testimony of an accomplice. On October 26 he was tried for grand larceny on a charge of stealing from the desk of the Supervisor of Labor and Quarters at Corozal two Commissary books of $5 each, in which he had forged names. He pleaded guilty and threw himself on the mercy of the court. His plea was accepted and he was sentenced to serve two years in the penitentiary at Culebra.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Finance	*P RR.*	*Friday*	*Oct. 25*
Altai	*H.-A.*	*Saturday*	*Oct. 26*
Colon	*P.RR.*	*Thursday*	*Oct. 31*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov. 2*
Tagus	*R.M.*	*Saturday*	*Nov. 2*
Advance	*P.RR.*	*Wednesday*	*Nov. 6*
Venetia	*H.-A.*	*Saturday*	*Nov. 9*
Panama	*P.RR.*	*Monday*	*Nov. 11*
Prinz Sigismund	*H.-A.*	*Saturday*	*Nov. 16*
Orinoco	*R.M.*	*Saturday*	*Nov. 16*
Dunottar Castle	*P.RR.*	*Monday*	*Nov. 18*
Finance	*P.RR.*	*Friday*	*Nov. 22*
Altai	*H.-A.*	*Saturday*	*Nov. 23*
Colon	*P.RR.*	*Wednesday*	*Nov. 27*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov. 30*
Atrato	*R.M.*	*Saturday*	*Nov. 30*
Advance	*P.RR.*	*Monday*	*Dec. 2*
Venetia	*H.-A.*	*Saturday*	*Dec. 7*
Panama	*P.RR.*	*Monday*	*Dec. 9*
Dunottar Castle	*P.RR.*	*Saturday*	*Dec. 14*
Prinz Sigismund	*H.-A.*	*Saturday*	*Dec. 14*
Trent	*R.M.*	*Saturday*	*Dec. 14*
Finance	*P.RR.*	*Thursday*	*Dec. 19*
Altai	*H.-A.*	*Saturday*	*Dec. 21*
Colon	*P.RR.*	*Tuesday*	*Dec. 24*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec. 28*
La Plata	*R.M.*	*Saturday*	*Dec. 28*
Advance	*P.RR.*	*Monday*	*Dec. 30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Dunottar Castle	*P.RR.*	*Saturday*	*Nov. 2*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Nov. 5*
Orinoco	*R.M.*	*Wednesday*	*Nov. 6*
Finance	*P.RR.*	*Thursday*	*Nov. 7*
Altai	*H.-A.*	*Saturday*	*Nov. 9*
Colon	*P.RR.*	*Wednesday*	*Nov. 13*
Advance	*P.RR.*	*Monday*	*Nov. 18*
Prinz Eitel Freidrich	*H.-A.*	*Tuesday*	*Nov. 19*
Atrato	*R.M.*	*Wednesday*	*Nov. 20*
Venetia	*H.-A.*	*Saturday*	*Nov. 23*
Panama	*P.RR.*	*Sunday*	*Nov. 24*
Dunottar Castle	*P.RR.*	*Friday*	*Nov. 29*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec. 3*
Finance	*P.RR.*	*Wednesday*	*Dec. 4*
Trent	*R.M.*	*Wednesday*	*Dec. 4*
Altai	*H.-A.*	*Saturday*	*Dec. 7*
Colon	*P.RR.*	*Tuesday*	*Dec. 10*
Advance	*P.RR.*	*Sunday*	*Dec. 15*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Dec. 17*
La Plata	*R.M.*	*Wednesday*	*Dec. 18*
Panama	*P.RR.*	*Saturday*	*Dec. 21*
Venetia	*H.-A.*	*Saturday*	*Dec. 21*
Dunottar Castle	*P.RR.*	*Thursday*	*Dec. 26*
Finance	*PRR.*	*Tuesday*	*Dec. 31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec. 31*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

La Plata	*R.M.*	*Tuesday*	*Oct. 29*
Tagus	*R.M.*	*Tuesday*	*Nov. 12*
Orinoco	*R.M.*	*Tuesday*	*Nov. 26*
Atrato	*R.M.*	*Tuesday*	*Dec. 10*
Trent	*R.M.*	*Tuesday*	*Dec. 24*

The Panama railroad steamships sail at 3 p.m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 2 p.m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Asian*, about November 10; *William Cliff*, about November 19, and steamers (names not yet known) about December 9 and about December 21.

Smuggling at La Boca.

There is said to have been considerable petty smuggling at La Boca recently, quantities of cigars, tobacco, Panama hats and other small articles having been received in small parcels from ships docking at that port, and taken away personally by the purchasers, without payment of duty. In order to put a stop to this practice, the Collector of Revenues has stationed two customs inspectors at the La Boca wharf, who are assisted by the police in enforcing the laws upon dutiable articles.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, NOVEMBER 6, 1907. No. 10.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

The Cucaracha Slide.

Steady progress has been made during the past week in removing the material cast into the Cut by the Cucaracha slide. The work has been aided by the slow movement of the slide which has dropped from 14 feet a day, the rate maintained during the first two weeks, to about 4 feet a day. Two tracks have been laid past the foot of the slide and a third track will be in place within a few days. The movement of dirt trains, to the full capacity existing before the slide occurred, will then be resumed.

October Excavation.

The grand total of excavation during October was 1,868,729 cubic yards. This exceeds the grand total for September, which was the highest previous record, by 351,317 cubic yards. Of the October total 1,844,471 cubic yards were taken from the Canal prism, 363,164 more than were removed from the prism in September. The amount removed by steam shovels alone in October was 1,085,325 cubic yards, which exceeds by 102,339 cubic yards the best record heretofore made since American control, that of April last, which was the best month of the dry season when there was practically no rainfall, whereas in October the rainfall for the eleven stations along the line of the Canal averaged 17.1 inches. At Tabernilla, where the principal dump is located, the rainfall was 26.46. This amount has been exceeded only twice on the Isthmus in the past 38 years. In October, 1872, the rainfall at Cristobal was 30.32, and in October, 1898, at Bohio it was 28.23.

The gain in shovel output in October was achieved by the same force of steam shovels and cars that was at work in April, and was achieved in spite of the interruption to the movement of dirt trains caused by the Cucaracha slide.

Of the grand total of excavation, 826,891 cubic yards were from Culebra, 177,015 from Gatun locks and spillway, and 73,813 from Mindi, Chagres and La Boca. The total by dredges was 766,754 cubic yards, 409,632 at Colon and 357,122 at La Boca. On accessory work outside the Canal prism, 24,258 cubic yards were removed, of which 7,608 were by steam shovels and 16,650 by dredges.

Below is the detailed October excavation:

Department of Excavation and Dredging.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Culebra Division...	826,891	7,608	834,499
Mindi.....	41,078	....	41,078
Chagres Division...	25,627	....	25,627
Total.....	893,596	7,608	901,204
Dredges—			
Colon Dredging Division..........	409,632	16,650	426,282
La Boca Dredging Division..........	357,122	....	357,122
Total..........	766,754	16,650	783,404
Grand total.....	1,660,350	24,258	1,684,608

Department of Lock and Dam Construction.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Gatun, locks..........	136,777	....	136,777
Gatun, spillway....	40,236	....	40,236
La Boca, locks......	7,108	....	7,108
Total..........	184,121	....	184,121

Entire Canal.

How excavated.	In Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
By steam shovels..	1,077,717	7,608	1,085,325
By dredges......	766,754	16,650	783,404
Total..........	1,844,471	24,258	1,868,729

October Rainfall for Three Years.

Station.	1905.	1906.	1907.	Av'ge since station estab'd.	No. of rainy days
Cristobal.......	13.45	13.34	21.99	14.06	30
Brazos Brook	....	16 40	18.42	17.41	30
Gatun..........	20.70	17.72	19.27	19 23	31
Bohio..........	14.90	9.91	19.00	17.18	30
Tabernilla	....	....	*26.46	....	31
San Pablo......	....	....	18.94	....	31
Bas Obispo...	....	....	13.62	11.50	27
Gamboa........	14.85	5.98	13.02	12.75	29
Empire..........	17.99	8.97	15.44	14.13	27
Camacho.......	....	8.05	15.88	11.96	29
Culebra.........	6.65	8 48	15.27	11.02	30
Rio Grande...	14.75	7.01	15 09	12.28	30
La Boca.........	7.37	3.37	10.18	8.98	21
†Alhajuela.....	10.88	8.26	10.88	12.51	31

* This amount of rainfall for October has only been exceeded twice on the Isthmus. At Cristobal in October, 1872, it was 30.32, and at Bohio in October, 1898, the rainfall was 28.23. The record covers a period of thirty-eight years.

†The average rainfall in the Zone as shown by the above table, excluding Alhajuela, which is outside the Zone, was 17.1 inches for the month.

Building Operations and Cost.

The 767 new buildings erected by the Building and Construction Division during the last fiscal year brought the total of Commission buildings on hand to 2,919 of all classes. Of the 2,265 buildings received from the French Canal Company 252 were repaired during the year, and 113 were destroyed. There are remaining 678 of these buildings yet to be repaired, remodeled or demolished. The average force employed by the Division was 3,570 men, and in the year's work there was spent $4,357,578.57. The largest single item was for quarters for gold employes, amounting to $1,432,415.51. The next largest item was for the construction of silver employes' quarters—$482,502.88. For the construction of buildings for hospital purposes there was expended $315,196.57, and for supervision and clerical force, $193,763.73.

New Sea-Going Craft for La Boca.

The *Catherine Moran*, a sea-going tug purchased by the Isthmian Canal Commission for use at the Pacific end of the Canal, sailed from New York on October 25. The first stop for coal was made at Barbados, where she reported her arrival on October 30. After leaving Barbados she will stop for coal and provisions at Pernambuco, Brazil; Montevidio, Uruguay; Punta Arenas, Argentina; and Callao, Peru, and will report by cable her arrival at each port.

The *Catherine Moran* is 110 feet long, 23 feet beam, and 13 feet depth of hold, and is expected to arrive at La Boca the latter part of next January.

The sea-going suction dredge *Culebra* which sailed from Sparrows Point, Maryland, for La Boca on October 9, and stopped at Barbados for coal on October 18, arrived at Pernambuco, Brazil, on October 30, with all on board reported well.

European Laborers.

There were employed on Canal work on November 1, 5,775 European laborers, and of this number 5,121 were actually engaged on the work. They were divided as follows:

	Spaniards.	Italians.	Greeks	Unclassified.
Cristobal Division. .	509	74	367	20
Gorgona Division ...	1,085	265	70	7
Culebra Division.....	1,908	129	......	9
Ancon Division........	838	459	22	13
Total...............	4,340	927	459	49

Capacity of the Cristobal and Colon Docks.

The Cristobal and Colon docks of the Panama Railroad Company have the capacity to handle in a working day of twenty-four hours the following amount of material: 3,000 barrels of cement; 150,000 feet of lumber; 35,000 cross ties; 250 piles; 300 tons of rails, and 700 tons of coal. When no coal is being unloaded the number of barrels of cement can be increased to 5,000.

TELEGRAPH AND TELEPHONE.

Development of the System on the Isthmus.

Beginning with practically nothing, the Telegraph and Telephone Department has to-day a line of 18 wires from Colon to Culebra; 24 wires from Culebra to Panama, on iron rail poles along the railroad, and a line of 8 to 24 wires from Bas Obispo to Pedro Miguel on creosoted wooden poles along the Canal prism. These wires are for the use of the excavation force in the Culebra Cut, practically every steam shovel or other important unit in the Cut being connected by telephone with engineering headquarters. It has established 11 telephone exchanges; installed 800 telephones; opened 24 new telegraph offices, making a total in all 32; erected 20 four-arm, iron mast, semaphore signals, with which has been established a manual block system with stations about two miles apart, with telegraphic communication from block to block.

The wires are divided into uses as follows: 8 for telegraph, three of which are used by the Central and South American Cable Company, one being in through circuit from New York to Buenos Ayres, leaving five wires for Zone use as follows: One train wire, 1 block wire, 1 through wire and 2 locals. There are also 5 pairs of telephone wires between Colon and Panama, with 3 additional pairs between Culebra and Panama, used as follows:

One pair for a trunk line between Colon and Gatun; 1 pair for a trunk line between Colon and Gorgona, and also for trunk line between Gorgona and Empire; 1 pair for a trunk line between Colon and Empire, and also for trunk line between Empire and Panama; 1 pair for a trunk line between Colon and Culebra, and also for trunk line between Culebra and Panama; 1 pair for trunk line between Colon and Panama; 3 pairs for trunk line between Culebra and Panama; 1 pair between Gorgona and Culebra for trunk line; 1 pair between Gorgona shops and Culebra for Mechanical Department; 1 pair between Empire and Tabernilla for Isthmian Canal Commission Transportation Department to all dumps between these points.

Three trunk lines, 6 wires, are of No. 9 copper wire; 1 trunk line, 2 wires, is of No. 12 copper wire; the telegraph and local telephone lines are of No. 9 and 10 double galvanized iron wire.

Authority has been asked for an additional cross-arm between Colon and Culebra carrying 2 No. 9 copper wires for an additional trunk line between Colon and Culebra which can be connected through to Panama to make an additional trunk line between Colon and Panama when two connections are needed at once. It will provide a pair of No. 10 iron wires for a trunk line between Culebra and Gatun and one from Gorgona to Gatun which will be a great help to the service, practically doubling the present capacity between Colon and Culebra.

The department has been called upon a great many times to make quick moves and changes in the lines. It has moved 35 per cent of the lines at different times and places, practically without interruption to communication. It has been called upon a great many times to have communication established quickly at different points without waiting for permanent work and material. This necessitated temporary work, to be later converted into permanent work without interrupting communication.

The equipment installed is of the best quality. The instruments in use are the best made and the work done is better than is required in the United States. The weather and atmospheric conditions here are so unfavorable, that it is essential to take precautions here that are altogether unnecessary in the States. Hard rubber for terminal strips must be used because wood exposed to atmosphere gathers moisture enough to cause current leakage and crossings.

The extremely bad conditions here which would naturally cause undue cross talk from induction have practically been eliminated. Wherever possible, electric light wires have been run into the switch boards, placing four to six lights inside which are kept burning all night. The heat from the lamps keeps out moisture.

There have been received recently from New York, two double section central energy switch board to be installed in place of switch boards at two points which have outgrown the present equipment, and the old equipment will be used at the smaller exchanges which are growing rapidly.

A telephone directory is ready for printing and will be distributed as soon as published.

If there is trouble at times in communicating, it is due to such causes as are experienced everywhere in telephone work. There is on the Isthmus a complete arrangement for locating such troubles quickly, and men are placed at different points where they can be sent promptly to repair breaks. Malicious persons by throwing stones at the insulators and breaking them have given considerable trouble.

No Zone Militia Organization.

A committee of employees consisting of Messrs. A. B. Kratz, Percy T. Sealey, and Frank T. Hamlin, recently formulated and submitted upon their own initative a plan for a militia organization in the Canal Zone, as a reserve military force, to correspond in purpose and scope to the National Guard of the United States.

It was proposed to have four companies of infantry, one signal corps company and one company of artillery, the latter, with headquarters, band and staff to be stationed at Culebra, the other companies being stationed at Empire, Gorgona and Gatun.

The tentative plan proposed that enlistment should be for a period of one year and that the companies should be equipped with Springfield rifles, machettes and revolvers. It was proposed to allow each officer and man increased pay for military duty performed.

The scheme of this organization was referred to the commanding officer of the Marine Battalion at Camp Elliott for his recommendation. He reported that in his opinion the orgainzation of a military force of this character on the Isthmus would be impracticable and undesirable at the present time. The Head of Department of Civil Administration, in passing upon the matter, stated that legislation would be necessary before such an organization could be effected.

In view of this fact, and also of the additional expense which the plan would involve, no steps toward effecting this organization are contemplated at the present time.

Visiting Congressmen.

The Congressmen who are visiting the Isthmus, mainly members of the House Committee on Appropriations, are divided politically, and among various States as follows:

REPUBLICANS.

James A. Tawney, Chairman, Minnesota.
Washington Gardner, Michigan.
F. H. Gillett, Massachusetts.
J. Warren Keifer, Ohio.
A. L. Brick, Indiana.
Martin B. Madden, Illinois.
Joseph V. Graff, Illinois.

DEMOCRATS.

A. S. Burleson, Texas.
Geo. W. Taylor, Alabama.

Congressman Mann of Illinois, who is not a member of the Committee, is a Republican.

New Isthmian Baseball League.

At the meeting of the baseball managers at the office of Mr. W. E. Russell, at Ancon, on Sunday, November 3, it was decided that the league for the next season would be composed of six teams, five of the old teams, and Gatun, an entirely new team. The old teams are Empire, Ancon, Gorgona, I. C. C. and Kangaroos.

Applications were received from one or two other organizations, but on account of lack of parks it was decided that more than six teams would not be justified at present. It is hoped, however, that additional parks can be secured, when it will be possible to have more towns represented in the league.

A final meeting, on Sunday, November 17, at Empire, will be held for the purpose of arranging the year's schedule.

On October 30 five steam shovels at the Gatun lock site excavated 5,425 cubic yards, car measurement. This was the maximum daily output for the week ending October 30.

Weather Conditions, Canal Zone, October, 1907.

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.			Mean relative humidity	Wind.				Precipitation.		
		Mean.	Maximum.	Minimum.		Prevailing direction.	Av. hourly vel. in miles.	Maximum vel. in miles.	Total movement.	Number of rainy days.	Total	Average since station established.
Cristobal	29.86	78	85	71	93	s.e	6	25	4485	30	21.99	14.06
Bas Obispo	29.86	78	87	69	95	n w.	3	18	2211	27	13.62	11.50
Ancon	29.85	80	91	70	92	....	......	......	....	21	9.26	11.87
Naos	29.85	80	93	72	91	n.w.	4	34	4341	16	4.88	6.12

LETTERS FROM THE LINE.

Junior Order U. A. M.

THE CANAL RECORD:

All members of the Junior O. U. A. M. and D. of A. on the Canal Zone are requested to send their names and addresses to J. Frank Houston, Gatun, C. Z. Object to organize a club on the Zone.

R. S. HOUSTON.

Gatun, Oct. 28.

Cricket at Colon.

THE CANAL RECORD:

On Sunday, October 27, a cricket match was played on the Colon grounds between the Colon and the Gorgona clubs, resulting in a victory for the visiting team by 11 runs. Score: Gorgona 66 runs, Colon 55 runs. Top score for Gorgona made by Guilfoyle, with 21 runs; for Colon, DaCosta, 23 runs.

We shall be glad to receive challenges from other teams, and the secretary, Mr. T. J. Guilfoyle, will answer communications from interested parties relative to purchase of cricket material for quick formation of clubs, etc.

LEWIS C. SINCLAIR,
President, Gorgona Cricket Club.

Gorgona, Oct. 28.

Red Men's Ball.

THE CANAL RECORD:

The ball given by the Caribb Tribe No. 7, I. O. R. M., in the hall of the I. C. C. hotel at Las Cascadas on Saturday evening, October 26, was a highly successful entertainment. There were about one hundred and fifty guests present, and the hall was beautifully decorated with palms, flowers and flags.

Dancing commenced at 8 p. m. and lasted for several hours, with an intermission at 10 o'clock, when refreshments were served. At the close all present were unanimous in saying that the Caribb Tribe dance had been a most enjoyable affair.

E. B. DUNCAN.

Las Cascadas, Oct. 28.

How to get a "Lemon"

THE CANAL RECORD:

Please publish the following in the interest of red tape and a good laugh. I vouch for its truth:

New employe to Commissary clerk: "I want some lemons."

Commissary clerk: "We don't keep such things."

Employe: "They are on your grocery list."

Commissary clerk: "You get them from cold storage."

Employe (after walking five blocks to cold storage and return): "They say I must get an order from you."

Commissary clerk: "We don't give orders except between the hours of 9 and 4."

Employe: "I have to work in those hours, but will send you the order for the lemons." (Makes order and attaches coupons in payment. A week later gets following letter from cashier at Commissary):

"Dear Sir: Owing to the fact that coupons are not good when detached from the book, I have had to confiscate same," etc.

GEO. OLD.
Steno. in General Manager's Office,
Panama Railroad.

Colon, Oct. 7.

Pedro Miguel Social and Recreation Club.

THE CANAL RECORD:

A very pleasant smoker and reception was given by the Pedro Miguel Social and Recreation Club at the club rooms Tuesday evening, October 29. About seventy were present, the Corozal and Paraiso clubs being well represented.

The rooms were neatly decorated, refreshments served, and an impromptu program rendered and the occasion thoroughly enjoyed by all, the entertainment of the evening culminating with a two-round boxing bout between H. W. Shick and William Watkins, (welter-weight locomotive engineer class), involving scientific points hitherto unknown on the Isthmus.

Much credit is due to the committee, Messrs. Connell, Owens, Palmer, Oldfield and Jeffries for their successful arrangement and management.

GERALD L. BLISS,
Secretary.

Pedro Miguel, Oct. 30.

Smoker at Camp Elliott.

On Saturday evening, October 19, the enlisted men of Camp Elliott, Canal Zone, gave their first informal smoker and entertainment.

The entertainment was given as an experiment and for the purpose of discovering and developing talent.

Major John H. Russell, commanding, the officers and men were so well pleased with the results that it was decided to give another in the near future. Following is the program rendered:

PROGRAM.

1	March—"Dunlap's Commandery"	R. B. Hall
2	Athletic specialty	Thomas and Geisler
3	Specialty	Barber
4	"Hearts and Flowers"—T. Tobani	Band
5	Specialty	Lowenthal and Czyzniewski
6	Vocal solo	Markus
7	Dance	Honyoust
8	Waltz—"Don't be Cross, etc."	Zeller
9	Dance	Brakefield
10	Boxing, light weight	
11	Masonic Soldiers—E. E. Brong	Squad
12	"American Patrol"	Band
13	Boxing, heavy weight	
14	Cup fight	
15	"March Duty"—E. Arnold	Band

Refreshments.

University Club Smoker.

The University Club will give a smoker in honor of the members of the Congressional party to arrive this week. The exact date will be fixed after their arrival, and due notice will be given to members and guests by letter.

PHILIP VINCE,
Secretary.

Concert.

By the I. C. C. Band at Hotel Tivoli, Sunday, November 10, at 2.15 p. m.:

PROGRAM:

1	March	*To the Front*	Baines
2	Medley selection	*George Washington, jr.*	Cohan
3	Novelette	*Jasmine*	Bendix
4	Waltz	*Jolly Fellows*	Vollstedt
5	Cornet solo	*Columbia Polka*	Rollinson
	CHAS. E. JENNINGS.		
6	Two-step	*Honey Boy*	Von Tilzer
	Schottische	*Trading Smiles*	Ramsey
7	Overture	*Poet and Peasant*	Suppe
8	Morceau characteristic	*The Chirpers*	Frank
9	Patrol	*The Blue and Grey*	Dalbey
10	March	*National Anthem*	Bagley

CHAS. E. JENNINGS,
Musical Director.

The next concert will be given at La Boca, C. Z., Sunday, November 17.

PERSONAL.

Secretary Taft has decided to make his visit to the Philippines longer than was at first intended. His plans now are to leave Manila on November 10 on the U. S. ship *Rainbow* for Vladivostock, and to start on his trip overland from there on November 19. By this change of plan he will reach St. Petersburg about December 4, Berlin December 7, and New York about December 18.

Commissioner Major Wm. L. Sibert and family; Commissioner H. H. Rosseau; Miss Margaret B. Slifer; Mrs. L. S. Gardiner; Mr. George D. Brooke and wife; and Mrs. Thomas E. Brown, were among the passengers on the *Finance* which arrived at Cristobal on Friday, November 1.

Major J. L. Phillips, Superintendent of Ancon hospital, wife and daughter; Dr. W. E. Deeks, Ancon hospital; Drs. A. J. Orenstein and R. M. Nelson, Colon hospital; Drs. Grosbeck Walsh and E. J. Scarnell, and C. L. Carpenter, Resident Engineer at Gatun, were among the passengers on the *Panama* which sailed from Cristobal on October 28 for New York.

Mr. and Mrs. J. Macfarlane sailed from Cristobal on the *Dunottar Castle* on November 2, for a six weeks' visit to the States.

The Tivoli Club.

There will be a reception and dance in honor of the Congressional Committee, headed by Hon. James A. Tawney, at the Hotel Tivoli, Saturday evening, November 9.

Members desiring cards for friends should submit names to the secretary at once.

MALCOLM ELLIOTT,
Secretary.

Time Inspection Service.

The first Chief Engineer of the Commission, Mr. John F. Wallace, ordered that a system of time inspection be devised for the purpose of determining that the time of employees of the Isthmian Canal Commission was being accurately kept. The system was first placed in operation in August, 1905, when seven men were secured and put into the field with instructions to see that there were no irregularities in the time-keeping. As the force on the Isthmus has increased, the time inspection bureau has developed, until now there are about forty men who give their time to this feature of the work. For convenience, the Isthmus is divided into ten districts, each in charge of a senior inspector, who has from one to four assistants. An effort is made to check the time of all hourly laborers once a day and all others as often as possible.

This force of inspectors is appointed by and is under the supervision of the Examiner of Accounts, and it is their duty to see that the men who keep the time understand their business and keep it correctly, and that the time of the employees is not diverted to the personal use of foremen and others, and that there are no irregularities in the handling of material.

These inspectors work very closely with the heads of divisions and departments, reporting to them immediately petty irregularities that are continually being found in order that attention may be given them at once.

SOCIAL LIFE OF THE ZONE.

Old-Fashioned Entertainments and Hallowe'en Parties Mark Close of the Month.

The women's clubs have been prominent in the entertainments of the week, nearly all of them having been given under their auspices.

The Empire club is one of the largest in the chain. Mrs. D. W. Bolich assisted by Mrs. Beck and Mrs. Kennedy had charge of the entertainment given at the Commission club house on Hallowe'en. The barn party idea was effectively carried out in the decorations of apples, corn, doughtnuts, Chinese lanterns and palms; a fortune teller, the Blarney Stone and a Dunces Stool were amusing features. The evening ended with old-fashioned square dances, including the Virginia Reel, and a confetti frolic. Each member had the privilege of inviting two guests and the attendance was large.

The club has appointed several new committees; Mrs. Bolich is chairman of the social department which provides entertainments. A part of the work of this department is the organization of a dance for the bachelors one evening in the month. Mrs. Bolich has the privilege of choosing her assistants for each occasion. A chorus has been organized under the direction of Mrs. Adolf Faure. A circle for the the discussion of modern literature under Mrs. Bolich has been arranged. Mrs. C. K. Harris has been appointed chairman of the current events committee. A short time will be devoted each month to this discussion, the chairman appointing two ladies to assist. Short suggestive papers will be read, followed by general discussion. At the meeting November 7, Miss Heller will read a paper on Satsuma work. There will be music.

At the Hallowe'en party of the Gorgona club, "The Deestrick Skule" was acted to the great enjoyment of those present. This was followed by a "Spelling Bee." The Gorgona male quartette gave several selections. The rooms were decorated with apples and doughnuts, the Jack o' Lantern grinned with gratifying fearfulness and the home-made refreshments of pie, coffee and cake were greatly appreciated.

The first of a course of lectures on Sociology was given on October 24 by Mr. Ralph R. Wolf. The subject under consideration deals especially with the development of community life. The opening lecture took up early life in America and the development of the farming communities. The course will be brought down to modern sociological conditions.

The Spanish class has been organized with twelve members. The newly appointed committees have undertaken the following duties: The visiting committee calls on all newcomers and urges them to participate in the social life of the club and community; the sick committee has the work of visiting the sick in their homes and looks after those who may be in trouble.

Mrs. Ralph R. Wolf has been appointed secretary *pro tempore* during the absence of the regular secretary, Miss Ethel Hayes, in America.

At the meeting of the Gorgona Club on October 31, a letter was read from Colonel Gorgas, in which he granted the request made by the club to supply canvas canopies to be used over stretchers in carrying patients from the hospital to the train as a protection from sun and rain.

The business meeting of the Cristobal Woman's Club held on Wednesday, October 30 was characterized by the same spirit of enthusiasm and hearty co-operation on the part of the members that has made this club so marked a success since its organization. Reports were read by the different department heads, Home, Philanthropy, Art and Literature, showing the progress made in the work of each. The president announced the appointment of Mrs. Albert O. Herman as chairman of the Educational Department, thus completing the organization of departments. The following motions were voted upon favorably: that the hour of meeting be made 3.30 instead of 3 o'clock, in order to accommodate the nurses from Colon hospital who wish to attend, and that the ladies of Camp Elliott be granted the privileges of the club. The following resolution, presented by Mrs. Mears was adopted and a copy ordered sent to each club along the line:

> *Be it, Resolved*, That every club woman in the Canal Zone constitute herself a committee of one to foster favorable instead of adverse criticism of the conditions of the Zone and of the Isthmus of Panama.

The next meeting of the club will be held in the club rooms Wednesday, November 6, at 3.30. The subject, in charge of the art and literary department, will be "A Tour in Japan," by Mrs Mears, and will open the year's study of Japan to be taken up by this department.

The Pedro Miguel Club gave a Hallowe'en party on October 31, the entertainment taking the form of a sheet and pillow-case dance. Much enjoyment was derived from the old fashioned entertainment, as well as the bountiful supply of pumpkin pies, doughnuts, cakes and other provisions appropriate to the occasion. There was a good attendance.

The last in the chain of women's club in the Zone is the one organized October 17 at Las Cascadas. The community is not large and the position being somewhat isolated, the need of a social club for the benefit of the many young married women who are located there was greatly felt. There is a well organized men's social club and this organization extends the hospitality of its club room in the Commission hotel to the women at any time for their meetings. The room is large and the tables are supplied with a good assortment of current magazines and newspapers. The woman's club is organized under the title of the Nonpariel with the following officers: Mrs. Randall, president; Mrs. G. S. Lingo, vice president; Mrs. Williamson, treasurer, and Mrs. W. H. Boregard, secretary. The club is purely for social purposes. The second business meeting was held on October 31 when it was voted that the meeting should be held every Thursday at the club room, the first Thursday in the month to be a business meeting when the appointment of the entertainment committee to act for the month should be made. The remaining three meetings are devoted to social entertainment: on occasions programs will be given or cards parties will be arranged, or other form of amusement provided. One evening in the month a ball will be given.

The club organized a Hallowe'en party which was given October 30. Mrs. Williamson, Mrs Enright, Mrs. Lingo, and Mrs. Kaiser being appointed temporary committee for the occasion. Boxes of home-made refreshments were auctioned off during the evening and the sum of $80.50 realized; this will be devoted to the piano fund.

At the meeting of the officers and chairmen of the various departments of the Ancon Woman's Club which was held at Hotel Tivoli, October 30, the president, Mrs. W. C. Gorgas presided. Work was discussed and the names of the different members to act on committees were submitted. It is thought that at present the Literary and Music Department will be embraced under one head, Mrs. McFarland being the chairman. The organizing of quartettes for church exercises and other occasions will be taken up at once, the necessary steps being taken to determine the musical quality of the community.

The Educational Department, Mrs. Maguire, chairman, is arranging for the Spanish classes which will be given three times a week; Señora Paredes has been named as teacher. Steps to secure permanent quarters for the club meeting were taken and the committee appointed for this work is expected to report at the next business meeting. A talk on Home Nursing by Miss Murdock, assistant supervising nurse of the Ancon Hospital, has been arranged. Other papers of unusual interest are promised for the near future.

The Home Department, Mrs. Trask, chairman, will take up church work, each member of the committee being urged to use her influence in pursuading club members and their friends to attend the services of their different churches whenever opportunity offers. The club hopes to be able to have a good representation of church workers to aid Archdeacon Bryan on his arrival to take up his post as Archdeacon of the Isthmus of Panama and the Canal Zone.

On November 6 the club will hold a business meeting when matters of general importance will be brought up; a large attendance is requested. The business meeting will begin promptly at 2.15, and will be followed by an address by Madam LePrince on "What to Do and How to Do It," as applied to art and art work on the Isthmus. An exhibit of the speaker's water colors will be displayed. Tea will be served at the informal reception following the paper.

A public exhibit of Madam LePrince's works will be made at the Hotel Tivoli on November 7 and 8.

The women of Corozal gave a progressive whist party at the residence of Mr. and Mrs. E. F. Quimby with an attendance of about thirty.

The Gatun Club gave a Hallowe'en party in the hotel club rooms October 30, which was very well attended. The rooms were attractively decorated with palms and Jack o' Lanterns. After the program refreshments were served, the remainder of the evening being devoted to dancing which was greatly enjoyed by the young people.

The club held its regular meeting November 1. A literary program was given. Tea was served and the meeting adjourned. The regular meetings are held on the first and third Fridays of each month.

RECORD OF EXCAVATION.

MONTHLY TOTALS SINCE AMERICAN OCCUPATION.

BY STEAM SHOVELS.

CULEBRA DIVISION.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1904	1905	1906	1907
January.....		70,650	120,990	566,750
February...		75,200	168,410	639,112
March.......		132,840	239,178	815,270
April.........		126,749	213,177	879,527
May.....	27,556	75,935	196,209	690,365
June..........	32,551	76,905	212,623	624,586
July..........	31,599	78,570	159,789	770,570
August......	35,056	49,210	244,823	786,866
September.	25,220	44,085	291,452	753,468
October.....	19,695	52,940	327,009	834,499
November..	28,860	60,540	221,642	
December...	42,935	70,630	307,689	
Totals...	243,472	914,254	2,702,991	7,361,013

Total, 1904	243,472	cubic yards
Total, 1905	914,254	cubic yards
Total, 1906	2,702,991	cubic yards
Total, 1907 (ten months only)	7,361,013	cubic yards
Grand total to Nov. 1, 1907	11,221,730	cubic yards

There were also removed from the Chagres Division in September and October 49,373 cubic yards, of which 47,173 cubic yards were from the Canal prism.

GATUN.

Locks, Dams and Spillways.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1906		1907	
	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside of Prism
January.....			47,539	
February...			70,177	
March.......			100,151	
April.........			103,459	
May.........			70,528	
June			71,181	3,832
July..........			59,537	14,628
August......			78,357	26,866
September.			123,738	
October.....	3,055		177,013	
November..	11,517			
December...	12,506			
Totals...	26,628		901,680	45,326

Total to Nov. 1, 1907—973,634 cubic yards.

LA BOCA.

Locks, Dams and Spillways.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1906		1907	
	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside of Canal Prism
January.....				
February...				
March........			538	3,367
April..........				1,756
May..........				762
June...........				4,907
July...........			4,725	9,047
August..			6,874	8,991
September .			5,431	7,375
October			7,108	
November..				
December...				
Totals...			24,676	36,205

Total to Nov. 1, 1907—60,881 cubic yards.

Grand total by steam shovels to Nov. 1, 1907—12,376,264 cubic yards

BY DREDGES.

COLON.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1905		1906		1907	
	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism
January...				90,700		111,100
February.				105,500		110,002
March......				126,650		84,145
April........				87,200		69,889
May.........		60,700		64,875		133,847
June.........				73,500	17,000	107,118
July..		58,050		69,000	*104,322	5,600
August.....		53,183		54,000	204,427	5,127
September		48,837		123,540	403,842	17,000
October....		48,800		111,020	409,632	16,650
November		38,000		63,260		
December.		92,250		58,400		
Totals...		399,820		1,027,645	1,139,223	660,478

Total to Nov. 1, 1907—3,227,166 cubic yards.

* On this division in August, September and October there was also removed from the prism 70,646 yards in the Mindi Hills by steam shovels.

LA BOCA.

CUBIC YARDS, PLACE MEASUREMENT.

Months	1905		1906		1907	
	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism
January...				95,940		94,710
February.				95,940		93,480
March......				116,820		92,319
April...... .				110,700		104,855
May				112,340		122,157
June.........		50,676		62,697	64,352	67,228
July..........		41,533		98,400	108,338	
August.....		54,530		111,930	168,284	
September		114,308		105,780	144,625	9,350
October....		81,836		97,170	357,122	
November		71,176		92,988		
December.		71,094		90,528		
Totol...		485,153		1,191,233	842,721	584,099

Total to Nov. 1, 1907—3,103,206 cubic yards.

Grand total by dredges to Nov. 1, 1907—6,330,372 cubic yards.

Grand total by steam shovels and dredges to Nov. 1, 1907—18,706,636 cubic yards.

FRENCH AND AMERICAN RECORDS.

Highest elevation on new center line of Canal before excavation began by the French:	FEET
At Culebra	312
At Bas Obispo	233
Greatest depth of excavation by the French:	
On I.C.C. Canal axis at Culebra	161
On I.C.C. Canal axis at Bas Obispo	148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-feet level Canal:	
At Culebra—at same point as before	111
At barrier on Contractor's Hill ...about	140
At Bas Obispo	45
Amount excavated under American control:	CUBIC YARDS
In Culebra Division (canal prism) to November 1, 1907	11,221,730
Total excavation at all points under American control to Nov. 1, 1907	18,706,636
Total excavation by the French at all points and including diversion channel ...about	70,600,006
Total estimated excavation required April 1, 1907 for an 85-feet level canal:	
In Canal prism	101,050,000
On lock sites	7,965,000
For regulating work and diversion channel	2,150,000
Dredging in old Channel, Cristobal to Gatun, to open construction channel; and at Panama, to keep channel open to La Boca	3,350,000
Total	114,515,000

VIEWS OF ISTHMIAN VISITORS.

Comments of Minister Hicks.

The Hon. John Hicks, United States Minister to Chili, passed through Panama a few weeks ago on his way back to his post after a visit to his home in Wisconsin. He spent several days on the Isthmus, and wrote a long account of his observations to the Oshkosh *Northwestern*, a newspaper of which he is the editor and proprietor. From this account the following extracts are taken:

I had crossed the Isthmus five times before and the last was in August, 1905, but I was astonished at the changes that had been made. Up to two years ago the cars were small, dimly lighted, dirty and out of date, running on a single track, with very few passengers, through a sparsely settled region with only half a dozen dilapidated villages where we could see by the light of a kerosene lamp into the interior of the stores where negro salesmen were selling tobacco or calico to a few straggling colored men and women.

Now the trains are made up of excellent American cars with cane seats and every car seemed to be filled. Two tracks have been laid nearly the whole distance across. Darkness came before we were half way over and all the way out of Colon and along the Chagres river we saw evidences of the American invasion. Long trains of patent dump cars filled with earth, huge shops where machinery is put together, great buildings used for boarding houses, numbers of locomotives hauling trains loaded with supplies, and the sound of the hammer, the forge and the machine shop made a scene in activity quite in contrast with the tropical silence of the Spanish rule.

The most interesting sight was the very large buildings we passed, brilliantly lighted with electric light, and reminding one of a thriving manufacturing district in the United States. One was a boarding house, another a magnificent club for the workmen, a club provided with all the newspapers and magazines, billiard tables and gymnastic appliances and other conveniences, and the men have the free use of the building and contents at the price of $1 per month. Secretaries provided by the Y.M.C.A. but paid by the Government are in charge, and there are already four of these clubs in successful operation. They are part of the wise and salutary arrangements instituted by the Canal Commission for the health and comfort of the men.

It seemed in the darkness as if we were passing through a well-settled country, judging by the many large and well lighted buildings we passed, and yet this whole region was a wilderness when I passed over it two years ago. Finally, the long train stopped at the station in Panama and we took carriages for the Hotel Tivoli that could be seen on a neighboring hill, shining from turret to foundation stone in a blaze of light. It is built somewhat like a summer resort hotel in the United States, the mains walls of red bricks and the rest of pine, the floors of oak and the inside finish of Oregon pine, it looked as if it had at least 500 rooms, for it is three stories high and consists of three immense wings, but I am told that the number is much smaller, because the Commission built it with regard to the best sanitary conditions, and no expense was spared to make it comfortable and healthful. On every side of every story all around the building is a fine veranda from twelve to fifteen feet wide. Every room in the house is a large one with great high ceilings, and it opens to the outer air.

There are no elevators, about the only real convenience that is lacking. But everywhere, in all the wings and on every floor there are numerous bath rooms and toilet rooms with mosaic marble floors and every convenience, and every room is supplied with the finest sanitary washbowls and an abundance of water, and greatest of all, every door and everyone of the thousands of windows are furnished with strong iron screens, providing for a constant supply of pure air without the slightest danger from mosquitoes or noxious insects. Nowhere else in South or Central America have I seen a screen. I have been particular to say so much about this hotel because it is the first and only one of its kind in tropical America and it is destined to work a complete revolution in the hotels of Central and South America.

For, in the old days, Panama was a plague spot to be shunned by the travelers. The first time I stopped at a hotel, the walls were reeking with filth and moisture, the mirrors were discolored by the dampness, the rooms were foul with the accumulated dirt of years, and I was agreeably entertained by some friends, who told me that in the room I occupied a man had died of yellow fever only two or three months before. Now, travelers can come to Panama to spend a few days more pleasantly and more safely than anywhere in the surrounding country.

Not only in this hotel and in the boarding houses and clubs built by the Commission can the improvement be seen. Two years ago, when I drove from the station to the hotel, the carriage became stuck in the mud several times, and always in the rainy season the principal streets were quagmire and foul with garbage. Now all the leading streets are paved with brick and kept immaculately clean. Not only, that but every house has been renovated and supplied with sewer connections and an abundant supply of water. When one realizes that the mass of the inhabitants were negroes, Chinese, Italians and poor people generally, with the slovenly habits of tropical natives, the enormity of the task can be understood. Everywhere can be seen the evidences of American energy. In fact the whole enterprise is an object lesson to the people of South America and the whole world and the world never has seen anything like it before. Expenditures by the Canal Commission on the Isthmus to date will reach $48,000,000. When one sees what has been accomplished here and takes into account the prodigious difficulties that have been encountered, the amount seems small. Of course I have seen but little so far, but I am strongly of the belief that the work is being honestly carried on and that it will be completed in good time and will stand forever as a monument to the foresight and intelligence of Theodore Roosevelt and the good sense of the American people.

Miss Boswell's Observations.

In the New York *Tribune* of October 24 there is published a long interview with Miss Boswell, who had arrived from the Isthmus on the previous day. From this interview the following extracts are taken:

When I crossed the Isthmus for the last time there were crowds of women at every station throwing flowers and letters. I could not keep the tears back, and I forgot all the hard work I had done. I had spent four weeks going to and fro upon the Isthmus, riding in engine cabs and walking off thirteen pounds. But I would gladly have walked off thirty-six pounds for the joy of seeing the women get this new interest in their lives. I told them if they liked me at all not to let the movement die, and I know they won't. I know when a thing has vitality.

You see, it has been very monotonous for the women on the Isthmus. The men had their work, but the women had only their housekeeping, and the housekeeping there isn't the absorbing thing it is with us. It is more like housekeeping in a camp. Besides, a good many of the women have sent their children home or left them behind because of the lack of educational facilities on the Isthmus, which relieves them of another care and robs them of an absorbing interest. They had no social life, either.

It was inevitable that such conditions should cause discontent. Living conditions were satisfactory, but there was no variety or interest in life. Now, the Canal Commission wants the women to be happy, because their discontent extends to their husbands, and other men hesitate to bring their families to the Isthmus. So the Commission very wisely adopted the suggestion of the Civic Federation to organize women's clubs, and I was sent from the federation for that purpose.

The result seems to me simply wonderful. First and foremost, the clubs have broken the ice which kept these lonely women apart from one another.

But in addition to this there is much practical work that the clubs propose to do. They are all organized with four departments—home, education, philanthropy and music and literature. Under the head of home many things are being done. One is the beautifying of the dwellings by means of gardens and vines. Some of the houses have no ground in front, but they all have broad piazzas, or "galleries," as they are called, and these can be made beautiful with vines and plants. For this purpose the magnificent tropical flora can be utilized most effectively. Orchids that we consider rare grow in the jungle there and look beautiful when hung in baskets from the upper part of the porches.

The educational departments have all started classes in Spanish. The women all think that they ought to take advantage of their residence in a Spanish speaking country to acquire the language, but where only a few individuals would have made the effort without the incentive of the club, all are doing it now.

The educational departments will try to improve the school facilities, which are still very crude and inadequate. If this can be done, it will put an end to the separation of parents from their children and add much to the general content of the Isthmus.

The philanthropic department will visit the sick in their home and in the hospitals and arrange lectures on home nursing by nurses from the hospitals.

The music and literature departments arrange the programs for the meetings and have discovered a lot of unsuspected musical talent.

The culmination of the work was, of course, the organizing of the federation. We met at Ancon, in the Hotel Tivoli, and at my request we were allowed to use the sitting room occupied by President Roosevelt when he was there, and reserved for him until he comes again. The delegates chose for president Mrs. George W. Goethals, of Culebra, wife of the chairman of the Canal Commission, but as she is now in the United States the duties of the office are being performed by Mrs. Collins, the first vice president; the second vice president is Mrs. W. C. Gorgas, of Ancon, wife of Colonel Gorgas, the yellow fever exterminator. The federation has applied for admission to the General Federation of Women's Clubs, by which it will, of course, be warmly welcomed. On my arrival this morning I found waiting for me a letter from Mrs. Sarah Platt Decker, president of the general federation, saying that she was "dying" to hear all about the Canal Zone Federation.

Miss Boswell spoke with enthusiasm of the Canal as the "most wonderful thing ever undertaken by any nation." She said that conditions were improving every week, and that many of the suggestions made by Miss Gertrude Beeks, of the National Civic Federation, had been acted on.

As she talked Miss Boswell wore on her arm a beautiful bracelet made of stone from the island of Taboga, in the Pacific. It was a gift from her club friends at Panama.

Elmendorf's Canal Lecture.

That conditions at Panama are radically improved, and that the United States engineers there are accomplishing work little short of marvelous, is the attestation of Dwight Elmendorf, who yesterday delivered a travelogue at the New National Theatre on the subject of the Canal and conditions on the Isthmus.

Mr. Elmendorf began his series of lectures on America with the Canal Zone, and in a prologue, severely scored the critics who visit the remarkable work, spend a few days in inspecting the progress, and then return to the States to write magazine articles.

Mr. Elmendorf declares that the most pestilential spot on earth has been changed into a healthful region. The views shown bear out the statements, as the swamps are being filled up, the tropical growth is being removed, so the mosquito breeding tracts are becoming dry and the unsanitary shacks give way to well-appointed homes.

Moving pictures show the dredges and dumping cars which are accomplishing the stupendous undertaking at their work. Blast of rock in which economy of time and material are important features, are realistically shown. Probably the view which attracted the greatest attention was one in which the railroad tracks were moved at the rate of a mile an hour.

Practically every portion of the Canal route was shown on the screen. The great Culebra Cut was selected as that of most interest, and there the contrast of the methods in vogue several ago, when the French De Lesseps Company was at work and the aggressive manner of going about the task by the Americans was quickly evident.

Our engineers first made the entire Zone sanitary, and then began slowly to make the dirt fly. They are accelerating their speed, while with the French the attempt to work under unfavorable conditions ended in disaster.

No better testimonial could be given the present Canal administration than that which is seen by those who view the pictures taken by Mr. Elmendorf.—*Washington Herald*, Oct. 15.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

GORGONA.

The reception and smoker tendered Mr. Louis F. La Rose, the new assistant secretary, on Saturday evening, October 26, was well attended. A performance of the "Lickskillet Deestrick Skule," composed and produced under the direction of the Gorgona Woman's Club, on the evening of October 31, was a great success. Mrs. Van den Heurk and the other members of the decorating committee had made the hall very attractive. The music was under the direction of Mr. Charles S. Jennings, and the entire program under the general direction of "Schoolmaster" Prof. D. C. O'Conner was much enjoyed by all present.

CULEBRA.

The talk by Mr. Mason E. Mitchell on Experiences on Robinson Crusoe Island was enjoyed by an audience of 120 persons.

On Saturday, October 26, the Culebra bowling team defeated Gorgona in three straight games. In the last game Culebra made 933 points which is the highest team score that has been made in the league.

The Culebra Minstrels will give their third performance on the evening of either November 8 or 9. New costumes have been secured. The Glee club expects to give its first public concert on Friday evening, November 22.

CRISTOBAL.

A stock of cigars and box candies has been put in. The goods are for sale at Commissary prices to I. C. C. and P. R. R. employes in exchange for Commissary coupons.

The attractiveness of the building has been much enhanced by the installation of new electric fixtures, in place of the temporary ones that have been in use.

The minstrel show is being pushed by the following officers:

W. F. Christain, director of minstrels; M. L. Robb, director of music; C. R. Bryon, interlocutor; D. Fogle, pianist; C. L. Short, property man; F. H. Powell, press agent.

It is proposed to give the first performance on the night before Thanksgiving.

A fine new Victor phonograph, with a full line of records, has been added to the equipment during the past week.

BOWLING.

Cristobal high score bowling averages for the week ending October 31:

Name of player.	Games.	Average.
Frank Rotch	12	150
Gilmore	14	157
Luce	23	157
Taylor	19	155
Barte	21	169
Valentini	23	153
Strong	11	170
Porter	15	149
Dillon	10	142
Hostetter	6	144

Highest scores: Porter, 226; Luce, 223; Strong, 223; Barte, 211; Taylor, 200. High average for three games: Strong, 204⅓.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Nov. 6, 1907.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Antonio, Vargin
Austin, Chas. B.
Barker, J. L.
Binson, Aron
Bingley, Percy W.
Bogart, Chas.
Calahan, John
Daniels, Will L.
Dole, C. S.
Famelo, Nikoloon (5010)
Gebhardt, John
Guyer, Jake
Harbaugh, Paul
Mayner, J.
Nupp, Warren
Odom, Mrs. Daisey
Rector, Miss Josephine
Ruck, Miss Ann
Schore, F. J.
Schultz, O T.
Silvers, C.
Thorne, Chas. L.
Wertz, Miss Nellie
Wheeler, Mrs. Wm. P.
York, Paul
Andrews, Isaac H.
Bowman, Thos.
Burnham, J. T.
Burdge, L. E.
Cole, Jack
Dean, J M.
Greenslade, Geo.
Lorah, Walter
Moon, Mrs. Mathie
Ohlson, Berger
Rodeman, E W.
Silvers, C.
Sutton, Mrs. M E.
White, B.

OFFICIAL CIRCULAR.

Panama Railroad Company.

Effective this date, Mr. C. Rother is appointed Acting Local Auditor, with headquarters at Colon, R. P., vice R. S. Marshall, resigned.

HIRAM J. SLIFER,
Asst. to the President.

Colon, Oct. 25.

Commissary Prices.

Purchasers from the Commissary having deposit accounts will kindly forward all coupon books by registered mail. In the event that a commissary book sent forward by ordinary mail is lost, this Department will refuse all responsibility in regard to the same.

JOHN BURKE,
Manager.

For week ending Oct. 26:

FRESH MEATS.		Price, cts.
Beef, sirloin, roast	*per lb...*	*25*
Beef, rump, roast	*do*	*25*
Beef, Porterhouse	*do*	*25*
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	*17*
Beef, rib-roast, second-cut	*do*	*15*
Beef, chuck-roast	*do*	*12*
Beef, soup	*do*	*7*
Beef, stew	*do*	*10*
Beef, corned	*do*	*10, 12, 14*
Beef, corned, sirloin butts, all lean	*do*	*16*
Beef, corned, fancy boneless brisket	*do*	*18*
Steaks, sirloin	*do*	*25*
Steaks, Porterhouse	*do*	*25*
Steaks, rump	*do*	*25*
Steaks, tenderloin	*do*	*22*
Steaks, round	*do*	*12½*
Veal, cutlets	*do*	*23*
Veal, short-cut chops	*do*	*22*
Veal, loin	*do*	*14*
Veal, entire forequarters	*do*	*10*
Veal, for stewing	*do*	*10*
Mutton, entire forequarters,	*do*	*10*
Mutton, short-cut chops	*do*	*19*
Mutton, leg	*do*	*17*
Lamb, for stewing	*do*	*11*
Lamb, entire forequarters	*do*	*11*
Lamb, short-cut chops	*do*	*27*
Lamb, legs	*do*	*24*
Pork, cuts	*do*	*20*

MISCELLANEOUS.		
Livers, beef	*per lb...*	*9*
Livers, calf	*apiece...*	*50*
Sausage, pork	*per lb...*	*16*
Sausage, Frankfurt	*per lb*	*16*
Sweet Breads, veal	*each*	*$1.20*
Sweet Breads, beef	*per lb*	*25*
Oysters, ½-gallon kegs	*each...*	*70*
Oysters, quart tins	*do*	*45*
Pickled pig's feet	*per lb...*	*6*
Tongue beef	*do*	*13*
Tongue pig	*do*	*12*

POULTRY AND GAME.		
Chickens, dressed (milk-fed).	*each...*	*$1.20*
Fowls	*do*	**70*
Turkeys	*per lb...*	*26½*
Broilers, frys (chicken)	*each...*	*80*
Squabs	*do*	*45*
Ducks (fatted)	*do*	**1.20*
Eggs, fresh,	*per dozen*	*35*

CURED MEATS AND LARD.		
Bacon, strips per lb	*per lb...*	*22*
Bacon, English breakfast, slic'd	*do*	*§26*
Ham, sugar-cured, sliced	*do*	*§25*
Ham, one-half (for boiling)	*do*	*§20*
Ham, Yorkshire (imported).	*do*	*25*

DAIRY PRODUCTS.		
Butter, prints, prime quality.	*per lb...*	**38*
Cheese, Camenbert	*each*	*28*
Cheese, Phila		*22*
Cheese, Neufchatel	*do*	*6*
Cheese, Roquefort.	*per lb.*	*45*
Cheese, Young America	*do*	*22*
Cheese, Swiss	*per lb...*	*30*
Cheese, Gouda	*do*	*30*
Cheese, Cheddar loaf	*do*	*32*
Cheese, Edam	*each...*	*90*
Milk, Briarcliff Farm	*per quart*	***15*

FRUITS AND VEGETABLES.		
Apples	*per lb...*	**4½*
Limes	*per hundred*	*30*
Bananas	*per dozen*	*5*
Oranges	*per dozen*	*12*
Peaches	*per lb...*	*†13*
Grapes	*do*	*8½*
Pears	*do*	*†13*
Grape Fruit	*each...*	*3*
Cranberries	*per lb*	*†14*
Malaga Grapes	*per lb*	*12*
California Grapes	*do*	*8*
Cantaloupes	*each*	*10*
Celery	*per bunch*	*18*
Cucumbers	*per lb...*	*†11*
White potatoes	*do*	**2*
Cabbage	*do*	*2*
Turnips	*do*	*3*
Lettuce	*do*	**23*
Onions	*do*	*2*
Cauliflowers	*do*	*†9*
Tomatoes	*do*	*5*
Yams	*do*	*2½*
Sweet Potatoes, American	*do*	**2*
Carrots	*do*	*3*
Egg Plants	*each*	*9*
Beets	*per lb*	*4*
Radishes	*do*	*8*

** Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries.

NEW ARTICLES.		Price cts.
Pigs' feet, pickled	*per lb.*	*6*
Pigs' tongue, pickled	*do*	*12*
Sugar, powdered, 5-lb. tins...	*per tin*	*80*
Sausage and sauerkraut, 2s.	*do*	*12*
Drill, brown, linen, B. D. 75, 25-in., stock No. 37,723	*per yard*	*25*
Drill, brown, linen, B. D. 80, 30-in., stock No. 37,724	*do*	*35*
Duck, white, linen, No. 2126, s450, 27-in., stock No. 37,731	*do*	*53*
Duck, white, linen, No 2126, s470, 28 inches, stock No. 37,732	*do*	*55*
Cigars, Havana, Generales, stock No. 37,663.	*each ...*	*25*
Cigars, Havana, Petit Perfectos, stock No. 37,664	*do*	*15*
Cigars, Havana, Argentinos, stock No. 37,665	*do*	*10*
Cigars, Havana, Perfectos finos, stock No. 37,666	*do*	*15*
Cigars, Havana, Flechas de Oro, stock No. 37,667	*do*	*10*
Cigars, Havana, Puritanos extra finos, stock No. 37,668	*do*	*10*
Rat-traps No. 20, Hotchkiss, stock No. 37,643	*do*	*17*
Stoves, coal and wood, No. 6, stock No. 37,644	*do*	*$10.30*
Stoves, coal and wood, No. 7, stock No. 37,645	*do*	*13.25*
Stoves, coal and wood, No. 8, stock No. 37,646	*do*	*15.85*
Stoves, coal and wood, No. 9, stock No. 37,647	*do*	*23.10*
Tumblers, water, No. 76, stock No. 37,715	*do*	*6*
Tumblers, water, No. 78, stock No. 37,681	*do*	*6*
Tables, pine, drop leaf, stock No. 37,683	*do*	*3.45*
Hats, Pearl as Denis, stock No. 37,661	*do*	*2.20*
Shirts, blue, working, No. 7756, stock No. 37,671	*do*	*55*
Cream Foam, for shaving, stock No. 37,682	*per tube*	*20*
Handkerchiefs, Irish cotton lawn, stock No. 37,688	*each..*	*10*
Half-hose, men's, tan, No. 497c, stock No. 37,688	*per pair.*	*16*
Half-hose, men's, tan, No. 8108, stock No. 37,692	*do*	*20*
Half-hose, men's, colored, No. 505, stock No. 37,691	*do*	*18*
Half-hose, men's, colored, No. 8095, stock No. 37,689	*do*	*18*
Ties, bow, 43-44, stock No. 37,693	*each*	*26*
Ties, wash, four-in-hand, white, No. 1754, stock No. 37,694	*do*	*24*
Ties, wash, white, No. 1725, stock No. 37,695	*do*	*21*
Ties, wash, blue, No. 1755, stock No. 37,696	*do*	*26*
Ties, wash, lavender, No. 1756, stock No. 37,697	*do*	*26*
Ties, Putesen, black, No. 101, stock No. 37,698	*do*	*52*
Ties, Putesen, blue, No. 105, stock No. 37,699	*do*	*52*
Ties, white, dress, fancy, No. 1944, stock No. 37,711	*do*	*24*
Ties, Putesen, blue, 2½-inch, No. 105, stock No. 37712,	*do*	*52*
Ties, solid blue, No. 100, stock No. 37,713	*do*	*45*
Ties, string, grey, No. 150, stock No. 37,714	*do*	*45*
Duck, white, linen, No. 2126, s530, 27½-in., stock No. 37,733	*do*	*80*
Half-hose, men's, black, with clocks, stock No. 37,726	*per pair*	*40*
Leno shirtings, NO, 905, ass'd patterns, 32-in., stock No. 37,728	*per yard*	*15*

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.

Maj. D. D. Gaillard, U. S. A., Culebra.

Maj. Wm. L. Sibert, U. S. A., Culebra.

Mr. H. H. Rousseau, U. S. N., Culebra.

Mr. Jo C. S. Blackburn, Ancon.

Col. W. C. Gorgas, U. S. A., Ancon.

Mr. Jackson Smith, Culebra.

Mr. Joseph Bucklin Bishop, Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.

Wm. Howard May, Secretary.

M. B. DePutron, Chief Clerk.

A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.

W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.

D. W. Bolich, Division Engineer, Empire.

S. J. Kennedy, Chief Clerk.

Louis K. Rourke, Assistant Division Engineer, Empire.

Wm. Gerig, Division Engineer, Gatun.

Mrs. C. L. MacPherson, Chief Clerk.

W. G. Comber, Division Engineer, La Boca.

David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.

R. M. Sands, Chief Clerk.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.

E. P. Thompson, Chief Clerk.

Wm. Gerig, Division Engineer, Cristobal.

Sydney B. Williamson, Division Engineer, La Boca.

E. A. LeMay, Chief Clerk.

W. G. Comber, Division Engineer, La Boca.

Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.

Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.

L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.

R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.

D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: H. H. Rousseau, U. S. N., Culebra.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.

E. C. McFarland, Chief Clerk.

George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.

F. W. Doty, Chief Clerk.

Earl J. Banta, Mechanical Engineer.

A. L. Robinson, Electrical Engineer.

W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.

P. O. Wright, jr., Architect, Culebra.

J. H. Barbour, Chief Clerk.

Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.

Max Dyer, Chief Clerk, Cristobal.

W. C. Haskins, Chief Clerk, Ancon.

Wm. Krugel, Stationer and Printer, Ancon.

Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.

H. D. Reed, Executive Secretary, Ancon.

J. K. Baxter, Chief Clerk, Ancon.

Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.

E. Lewis Baker, Deputy Collector, Cristobal.

Herman A. Gudger, Deputy Collector, Ancon.

George R. Shanton, Chief of Police, Ancon.

D. E. McDonald, Chief Clerk.

C. E. Weidman, Chief, Fire Department, Cristobal.

E. H. Hale, Chief Clerk.

Geo. L. Campen, Water Commissioner, Ancon.

Inocencio Galindo, Legal Adviser, Ancon.

David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.

H. A. Gudger, Associate Justice, Empire.

Lorin C. Collins, Associate Justice, Cristobal.

Walter Emery, Clerk of Court, Ancon.

Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.

Walter Emery, Circuit Court Clerk, Ancon.

Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,

Elbert M. Goolsby, Circuit Court Clerk, Empire.

Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.

Nelson R. Johnson, Circuit Court Clerk, Cristobal.

Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.

Prosecuting Attorney: George M. Shontz, Ancon.

Acting Prosecuting Attorney: Thomas E. Brown, jr., Ancon.

Translators: F. H. Sheibley and Charles M. Brown.

M. C. Rerdell, Senior District Judge, Culebra.

Thomas E. Brown, jr., District Judge, Cristobal.

J. M. Fernandez, District Judge, La Boca.

R. B. Myers, District Judge, Empire.

R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.

Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.

Harry C. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.

Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.

Maj John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.

J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.

Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.

Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.

Dr. John H. Purnell, Health Officer, Panama.

Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.

R. E. Wood, Assistant Manager, Culebra.

S. C. Klauber, Chief Clerk.

J. M. Maguire, Ancon; C. C. McColley, Empire; Chas. L. Parker, Gorgona; Edgar Lowe, Cristobal, division superintendents.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.

Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.

W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.

W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.

W. F. Shipley, Sales Manager, Cristobal.

S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

DIPLOMATIC CORPS.

Ministers Residing at Panama.

H. G. Squires, United States.

Claud Coventry Mallet, Great Britain.

Antonio da Fontaura Xavier, Brazil.

A. J. de Amarol Murtinho, Secretary, Brazilian Legation.

Chargé d'Affaires.

Henry Moet, France.

M. Leon Huttinot, ad interim, France.

Federico Alfonso Pezet, Peru.

Alberto Bresani Rossel, Attache.

Federico Boyd, Nicaragua.

E. Pollet, residing in Guatemala, Belguim.

J. H. Reus, residing in Caracas, Netherlands.

CONSULAR CORPS.

Consuls Residing at Panama.

Arnold Shanklin, Consul General, United States (and in charge of interests of Greece and China.)

Felix Ehrman, Vice Consul-General, United States.

Caspar L. Dreier, Deputy Consul-General, United States.

Samuel Boyd, Consul-General, Bolivia.

Jose Fernanda Arango, Consul-General, Guatemala.

Federico Boyd, Consul-General, Salvador.

B. D Fidanque, Consul, Belgium.

Ramon Arias, F., Consul, Brazil

Louis Uribe, Consul, Costa Rica.

J. Gabriel Duque, Consul, Cuba.

J. L. Maduro, Consul, Denmark.

Mauricio Fidanque, Consul, San Domingo.

Arturo Kohpcke, Consul, Germany and Italy.

Jose Maria Aramendia, Consul, Mexico.

Dr. A. Jesurun, Consul, The Netherlands.

Juan Potous y Martinez, Consul, Spain.

Coronel S. McGill, Consul, Venezuela.

Jorgen Brunchorst, Consul, Norway (residing in Havana, Cuba).

Thomas Broadwood, Vice-Consul, Great Britain.

Pedro Arias, F., Vice-Consul, Ecuador.

Albert Ritt, Vice-Consul, France.

Ernesto A. Boyd, Vice-Consul, Salvador.

Dr. Augusto S. Boyd, Vice-Consul, Nicaragua.

Alberto de Obarrio, Consular Agent, Peru.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Advance	*P.RR.*	*Wednesday*	*Nov.*	*6*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*9*
Panama	*P.RR.*	*Monday*	*Nov.*	*11*
Prinz Sigismund.	*H.-A.*	*Saturday*	*Nov.*	*16*
Orinoco	*R.M.*	*Saturday*	*Nov.*	*16*
Dunottar Castle	*P.RR.*	*Monday*	*Nov.*	*18*
Finance	*P.RR.*	*Friday*	*Nov.*	*22*
Altai	*H.-A.*	*Saturday*	*Nov.*	*23*
Colon	*P.RR.*	*Wednesday*	*Nov.*	*27*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*30*
Atrato	*R.M.*	*Saturday*	*Nov.*	*30*
Advance	*P.RR.*	*Monday*	*Dec.*	*2*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*7*
Panama	*P.RR.*	*Monday*	*Dec.*	*9*
Dunottar Castle	*P.RR.*	*Saturday*	*Dec.*	*14*
Prinz Sigismund	*H.-A.*	*Saturday*	*Dec.*	*14*
Trent	*R.M.*	*Saturday*	*Dec.*	*14*
Finance	*P.RR.*	*Thursday*	*Dec.*	*19*
Altai	*H.-A.*	*Saturday*	*Dec.*	*21*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*24*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec.*	*28*
La Plata	*R.M.*	*Saturday*	*Dec.*	*28*
Advance	*P.RR.*	*Monday*	*Dec.*	*30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Orinoco	*R.M.*	*Wednesday*	*Nov.*	*6*
Finance	*P.RR.*	*Thursday*	*Nov.*	*7*
Altai	*H.-A.*	*Saturday*	*Nov.*	*9*
Colon	*P.RR.*	*Wednesday*	*Nov.*	*13*
Advance	*P.RR.*	*Monday*	*Nov.*	*18*
Prinz Eitel Freidrich	*H.-A.*	*Tuesday*	*Nov.*	*19*
Atrato	*R.M.*	*Wednesday*	*Nov.*	*20*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*23*
Panama	*P.RR.*	*Sunday*	*Nov.*	*24*
Dunottar Castle	*P.RR.*	*Friday*	*Nov.*	*29*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*3*
Finance	*P.RR.*	*Wednesday*	*Dec*	*4*
Trent	*R.M.*	*Wednesday*	*Dec.*	*4*
Altai	*H.-A.*	*Saturday*	*Dec.*	*7*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*10*
Advance	*P.RR.*	*Sunday*	*Dec.*	*15*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Dec.*	*17*
La Plata	*R.M.*	*Wednesday*	*Dec.*	*18*
Panama	*P.RR.*	*Saturday*	*Dec.*	*21*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*21*
Dunottar Castle	*P.RR.*	*Thursday*	*Dec.*	*26*
Finance	*PRR.*	*Tuesday*	*Dec.*	*31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*31*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Tagus	*R.M.*	*Tuesday*	*Nov.*	*12*
Orinoco	*R.M.*	*Tuesday*	*Nov.*	*26*
Atrato	*R.M.*	*Tuesday*	*Dec.*	*10*
Trent	*R.M.*	*Tuesday*	*Dec.*	*24*

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 2 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Asian*, about November 10; *William Cliff*, about November 19, and steamers (names not yet known) about December 9 and about December 21.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, NOVEMBER 13, 1907. No. 11.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

The Cucaracha Slide.

Owing to the progress made in the removal of earth from the Cucuracha slide, night work is now no longer necessary. Two tracks are in operation at the slide in the Cut on the west side, one of which is used for the passage of loaded material trains and the other as a loading track for steam shovels. The passage of all loaded material trains through the Cut to the south has been resumed, but in order to interfere as little as possible with work at the slide, empty trains are brought back on the line of the Panama railroad.

Sea-Going Ladder Dredge A-3.

The sell-propelling sea-going ladder dredge No. A-3 is an old Scotch dredge that came to the Isthmus, under her own steam, from Glasgow, Scotland, in 1885, and was in service about 18 months in the old canal channel at La Boca. Since then it has been lying in the mud in the Rio Grande. In the first part of October she was brought to La Boca and dismantling was begun preparatory to rebuilding. After the old woodwork of the superstructure is cleared away and the hull cleaned out she will be placed on the shipways, about December 1. There will be two boilers installed, which were taken from old French material found at Colon and which are in first class condition because of the care taken to preserve them. Her engines were found to be in a good state of preservation. A crank shaft and two cylinders will be put in, and these also were found among the old French material at Colon. Practically all the balance of the engine and machinery found in the dredge will be used. A new main deck will be laid, and quarters for the crew erected on an upper deck. The entire dredge will be lighted by electricity.

This dredge is of the same type as Scotch dredge No. A-2, which was rebuilt by the Panama Railroad Company about five years ago, and which has made such a remarkable record of continuous service, having lost a total of only forty days for repairs in the last five years. But as No. A-2 has never had its own propelling machinery installed since being rebuilt, No. A-3 will be of much greater service, as it can shift its position under its own steam.

A new dredge of this character and capacity costs about $200,000. The estimated cost for rehabilitating this dredge is about $30,000, and it is expected to be ready for work in about four months, and to have a monthly capacity of over 130,000 cubic yards.

The superior efficiency of these dredges is shown in the October record of excavation by dredges at La Boca. The monthly table shows a total of 357,122 cubic yards, or more than twice the yardage as shown by the September report, and of this amount 143,885 cubic yards were excavated by dredge No. 14 in 26 working days, an average of over 5,500 cubic yards per day.

October Revenues.

The report of the Collector of Revenues for the month of October, 1907, shows a steady increase in business. Money orders issued during the month of October amounted to $351,937.63, an increase of more than $4,000 over any previous month. The largest amount of orders was issued at Empire, aggregating $59,673.63; the next largest was at Culebra $50,373.32; Gorgona was close behind Culebra with $50,245.59, and Cristobal was fourth with $47,430.60.

Postage sales for the month of October amounted to $6,904.25, an increase of $200 over any previous month.

Other collections during October were as follows: land and building rent $1,486.48, miscellaneous bills $1,808, internal revenue (tax on distillation) $271.40, and for the administrative districts of Ancon, Cristobal, Empire and Gorgona, $5,707.51. Fines and costs for the districts of Ancon, Cristobal, Empire and Gorgona, $2,654.70.

At the ports of Ancon and Cristobal for the past month there were entered, thirty vessels with a total tonnage of 57,040, and there were cleared, thirty-three vessels with a tonnage of 71,361.

Rebuilt Coal Barge.

An old French coal barge with a wrought iron hull of 50 tons capacity, which had been abandoned in one of the small tributaries of the Rio Grande near Pedro Miguel, has recently been rebuilt into a barge with a capacity of 100 tons and was launched from the shipways at La Boca on the afternoon of November 6.

As the stream at the point the barge was found was not of sufficient depth to permit of the barge being taken to La Boca by water, it was decided to transport it there by the railroad. In order to do this and to facilitate handling, the hull was cut into two sections. Owing to the size of the first section taken, it was necessary to have flat cars placed side by side on the double track of the main line of the railroad, and in order not to interfere with the movement of construction trains the transferring was done outside of the regular traffic hours. The transfer was successfully made but to make handling easier and more economical the second section was also cut into two parts and these were then brought down singly by train with much less trouble.

When assembled on the shipways a new section, 40 feet long, was inserted amidship, which added about 50 tons to its capacity and brought the total capacity up to 100 tons. The barge has been completely overhauled and put in first class order at a cost of about $3,000, while a new barge of the same capacity would cost about $7,000. It will be used in coaling the fleet of dredges at work on the Pacific channel of the Canal.

Panama and Colon Improvements.

At the close of the last fiscal year it was estimated that the cost of improvements in the cities of Panama and Colon would approximate $1,750,000.

In Panama 13,000 feet of water pipe have been laid, consisting mainly of extensions in outlying districts, practically completing the water-works system. Connections were made in 2,093 houses, 1,048 meters were installed and 133 hydrants, 7 water cranes and 35 public taps were placed. The average consumption of water per capita was about 20 gallons per day.

Sewer pipe to the amount of 12,232 feet had been placed, 2,096 storm sewers had been built, 46 manholes and 62 catch basins had been constructed, and two large storm water sewers had been built for special drainage purposes. All brick paving in the city was completed on April 3. This work included 21,725 cubic yards of grading, 9,056 square yards of concrete foundation, and 29,066 lineal feet of curb. In the brick paving work 1,922,297 bricks were used, requiring 16,565 square yards of macadam foundation. There were laid also 2,746 square yards of macadam paving and 19,088 square yards of concrete paving.

In Colon the water-works system was practically completed; 3,956 feet of water pipe were laid, 75 house connections were made, 414 service boxes were installed and 122 meters tested and set. The sewerage system was completed, and in this work 24,521 feet of sewer pipe were used. On cross drains 1,377 feet of sewer pipe were laid. Excavation amounting to 16,300 cubic yards was made and 62 manholes built. A sump was constructed into which all sewage flows.

The completion of house connections with this system and the completion of modern plumbing is in active progress. Paving in Colon included 2,500 square yards of excavation, 9,031 square yards of brick pave-

NOTES OF PROGRESS.

(Continued)

ment, 3,211 lineal feet of curb, and 2,910 feet of header for brick pavement curb.

On the streets of Colon 36,993 lineal feet of combination curb and gutter were laid, 43,104 square yards of macadam, 15,253 cubic yards of earth fill, 2,218 cubic yards of grading, 15,500 lineal feet of excavation for curb trench, and 7,965 lineal feet of concrete header. For surface drainage, a 16-inch galvanized iron pipe was laid on Eleventh street from Bolivar street to the beach, and on Fifth, Seventh and Ninth streets from Front street to the beach. In addition, 1,795 lineal feet of vitrified pipe were laid in macadamized streets.

Steam Hopper Barge No. 9.

Steam clapet or hopper barge No. 9, the last of the fleet of clapets that will be rebuilt, was hauled on the gridiron at La Boca on September 23 and will be launched November 17.

The hull of this clapet was in good condition but it was necessary to put in a new boiler, new steam and bilge pipes, and new crank shafts for the twin screws. The crank shafts were brought from the States and are the first that have been bought for any of this fleet of eight clapets, all of which have been overhauled. The original cylinders and engine are still in excellent condition, it only being necessary to replace some of the smaller parts with old French material found at various points along the Canal. An entirely new deck and superstructure will be put on and the entire barge put in thorough repair.

This clapet has a capacity of about 280 cubic yards, and is of the same type as the one described in THE CANAL RECORD of October 30, and together with the other seven already in commission will be used in connection with dredging at La Boca It is expected that it will be ready for use about the middle of December. The total cost for rebuilding will be about $18,000, while a a new one would cost about $75,000.

Equipment on the Isthmus.

Statements of principal items of equipment in service of the Panama railroad and the Isthmian Canal Commission on June 30, 1906, and June 30, 1907, were as follows:

PANAMA RAILROAD.

Locomotives, French	24
Locomotives, New American	24
Coaches, first class	17
Coaches, second class	22
Cars, flat	48
Cars, Rodger ballast	100
Cranes	5
Track shifters	1
Pile drivers	2
Cars, box, old	474
Cars, box, new	476
Cars, coal	150

ISTHMIAN CANAL COMMISSION.

Equipment.	June 30, 1906	June 30, 1907.
Steam shovels, 45-ton	1	3
Steam shovels, 70-ton	15	28
Steam shovels, 95-ton	23	32
Locomotives, French	100	100
Locomotives, New American	39	160
Cars, French dump	541	250
Cars, American	324	455
Cars, American flat (wood)	1,061	1,501
Cars, American flat (steel)	500	500
Lidgerwood unloaders	12	18
Bank spreaders	13	13
Unloading plows	22	33
Track shifters	0	3
Pile drivers	1	7

STEAM SHOVEL PERFORMANCE.

Highest October Records.

The records of the two highest steam shovels in each class, in each of the four construction districts, with the number of the shovel, for the month of October, 1907, consisting of 27 working days, are as follows:

BAS OBISPO DISTRICT—95-TON CLASS.

No	Earth	Rock	Total
228	14,097 cu. yds	9,398 cu. yds	23,495 cu. yds
227	....	17,913 cu. yds	17,913 cu. yds

70-TON CLASS.

No.	Earth	Rock	Total
111	12,867 cu. yds	3,217 cu. yds	16,084 cu. yds
116	6,597 cu. yds	5,398 cu. yds	11,995 cu. yds

EMPIRE DISTRICT—95-TON CLASS.

No.	Earth	Rock	Total
215	11,740 cu. yds	14,339 cu. yds	26,089 cu. yds
220	11,295 cu. yds	13,804 cu. yds	25,099 cu. yds

70-TON CLASS—None.

CULEBRA DISTRICT—95-TON CLASS.

222 37,357 cu. yds of rock Total, 37,357 cu. yds
214 29,951 cu. yds of rock Total, 29,951 cu. yds

70-TON CLASS.

106 26,190 cu. yds of rock Total, 26,190 cu. yds
122 25,082 cu. yds of rock Total, 25,082 cu. yds

PEDRO MIGUEL DISTRICT—95-TON CLASS

No.	Earth	Rock	Total
211	16,845 cu. yds	22,770 cu. yds	39,615 cu. yds
209	2,814 cu. yds	25,325 cu. yds	28,139 cu. yds

70-TON CLASS.

No.	Earth	Rock	Total
123	11,365 cu. yds	5,683 cu. yds	17,048 cu. yds

Highest Daily Records.

The subjoined table gives the highest daily records of steam shovels, in the Department of Excavation and Dredging, from October 25 to November 9, inclusive:

Shovel No.	Date.	Location.	Amt. of material removed (cubic yards).	Kind of material.
103	Oct. 26	Mindi	1,950	rock and earth
221	Oct. 30	Bas Obispo	1,954	rock and earth
111	Oct. 30	Bas Obispo	1,380	rock and earth
207	Nov. 8	Empire	1,800	rock and earth
225	Nov. 8	Empire	1,640	rock and earth
222	Nov. 8	Culebra	2,188	rock and earth
109	Nov. 5	Culebra	1,740	rock and earth
209	Nov. 1	Pedro Miguel	3,040	soft rock
211	Nov. 2	Pedro Miguel	2,420	soft rock

Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dippers of a capacity of 5 cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovels supplied with cars, etc.

Gatun Shovel Records.

For the week ending November 2, 1907, there was loaded by shovels 113 and 114, at the spillway site, Gatun, 13,980 cubic yards, car measurement, or an average of 1,165 cubic yards per shovel per day.

The largest day's loading by both shovels was October 29, when 2,832 cubic yards were removed.

Shovel 114 made the largest output for any one day in the week, loading 1,428 cubic yards on the 29th.

The maximum daily output of shovels at Gatun for the past six working days was made on Friday, November 8, when the total number of cubic yards, car measurement, was 5,232 for the five shovels, an average of 1,046 cubic yards per shovel.

October Police Report.

The October report of the Chief of Police of the Canal Zone shows a noticeable decrease in the number of arrests for the past month, 537 arrests having been made in September and 429 in October. The decrease is partly due to the special endeavor made in September to suppress gambling on the Canal Zone, 42 arrests being made for that offense, and with the same activity in October, only 13.

The 429 arrests were for 37 different offenses and 30 different nationalities were represented. They were divided among the various towns as follows:

Ancon	20	Las Cascadas	26
Las Sabanas	1	Bas Obispo	11
La Boca	53	Gorgona	50
Corozal	1	Tabernilla	22
Pedro Miguel	19	Bohio	6
Paraiso	10	Gatun	16
Culebra	60	Cristobal	79
Empire	56	Total	429

There were 69 prisoners in the district jails of the Zone on October 31.

The coroner held inquests in sixteen cases of accidental deaths during the month. Eight of these deaths were caused by drowning, five were killed on the railroad and three died from other causes. Seven different nationalities were represented.

At the penitentiary there were 4 prisoners received and 6 discharged during the month, leaving a total of 82 convicts still on hand.

The value of the work performed by the convicts on roads, etc., amounted to $1,070.30.

The total effective police force on October 31 was 177 men. Fines amounting to $27 were imposed on members of the force, and the total amount of pay roll was $14,479.33 for the month.

Civil Service Examination.

A competitive examination under the rules of the U. S. Civil Service Commission for the position of clerk, stenographer, and bookkeeper, in the service of the Isthmian Canal Commission, will be held on Sunday, December 15. The exact hour and place of examination will be announced later.

Applications for this examination must be made on the prescribed blank form, which, with necessary instructions, may be obtained from the undersigned, at the Executive office, Administration Building, Panama. (P. O. address, Ancon, Station A.)

Applications will not be accepted unless received before 4.30 o'clock p. m. on December 12.

All persons wishing to take this examination should secure blanks and fill them out at once, in order to allow time for any necessary corrections.

JOHN K. BAXTER,
Secretary Civil Service Board,
P. O. address, Sta A, Ancon, C. Z.

Episcopal Church Service.

The Ven. Archdeacon Bryan will hold a celebration of the Holy Communion at the Protestant Chapel, Ancon Hospital, every Sunday morning at 8 o'clock, beginning Sunday, November 17.

VISIT OF THE CONGRESSMEN.

The Committee on Appropriations Spend Seven Busy Days.

The Congressional party, consisting of nine Members of the Committee on Appropriations of the House of Representatives and several friends, arrived at Cristobal on the *Colon* on Thursday, November 7. The personnel of the party was: Hon. James A. Tawney, Chairman; A. S. Burleson, Texas; A. L. Brick, Indiana; Joseph V. Graff, Illinois; Washington Gardner, Michigan; F. H. Gillett, Massachusetts, J. W. Keifer, Ohio; M. B. Madden, Illinois, and George W. Taylor, Alabama, Members of the Committee on Appropriations; Congressman James R. Mann of Illinois; Messrs. James C. Courts, clerk, and F. P. Fellows, assistant clerk to the Committee; Mr. J. D. Cramer, official committee stenographer; Mr. R. W. Gaylor, secretary to Mr. Brick, and Messrs. J. M. Diment, William H Laird, D. H. Moon and W. A. Smith.

They were met on the wharf by the entire Isthmian Canal Commission with the Chairman at its head. After inspecting the cold storage plant, the laundry, bakery, machine shops and other places of interest at Cristobal, they lunched at the Commission mess hall and were afterwards taken by special train to Gatun. Several hours were spent there in inspecting the sites of the locks and the Gatun dam and spillway. Boarding the train again the party visited the dump at Tabernilla, where they saw the track throwing machine in operation and also the Lidgerwood Unloader at work. They then went direct to Panama and the Hotel Tivoli, where they lodged during their stay.

In the evening the party attended a large reception given in their honor by the Hon. Jo C. S. Blackburn of the Isthmian Canal Commission in his new house on Ancon Hill, where they had an opportunity of meeting most of the prominent families of Panama, together with the American residents of Ancon and other places in the Zone.

On Friday morning the party were taken by the Chairman and members of the Commission on a special observation car to Pedro Miguel, where they entered upon the line of the Canal, passing through the Cut to Bas Obispo. They went next to Gorgona, where they inspected the shops, after which they returned to the Hotel Tivoli for luncheon. In the afternoon carriages were taken to Ancon Hospital, where they inspected the various wards and other buildings, and were subsequently driven to La Boca, where they viewed the lock and dam sites. The return to the hotel was made through the city of Panama. After dinner the party was taken by special train to Culebra, where they attended a performance at the Commission Club House, which had been specially arranged for their entertainmnt by the Culebra minstrels. At the close of the performance they returned to the Hotel Tivoli for the night.

On Saturday morning they went by special train to Empire, where they inspected the Disbursing Office and afterwards returned to Culebra, where the Administration Building was inspected. They lunched at the Culebra mess hall and returned to the Hotel Tivoli in the afternoon. In the evening they were the guests of honor at a reception and ball given by the Tivoli Club in the hotel. The attendance was very large, comprising a larger part of the American colony on the Isthmus and prominent Panamanians.

On Sunday a trip was taken on the *Bolivar* to Taboga, where a luncheon was served at the Sanitarium and a visit made to the native village on the island, after which the party returned to Tivoli for the night.

On Monday the Committee began a hearing on the estimates for the next Canal appropriation. The first meeting was held at Culebra and lasted throughout the day and evening.

On Tuesday, the second meeting was held at the Hotel Tivoli, continuing throughout the day. In the evening the members of the Committee were the guests of honor at a Smoker at the University Club.

On Wednesday afternoon the party sailed for New York on the *Colon* from Cristobal.

Culebra Minstrels.

The Culebra Minstrels gave a performance in honor of the Congressional party at the Commission club house at Culebra on the evening of November 8, which was enjoyed by an audience of 550 persons. The following program was rendered:

PROGRAM.

Overture . ... *Orchestra*

FIRST PART

1—Opening chorus, "Medley"...*By the troupe*
2—Coon song, "Brotherly Love".... *J. C. Parsons*
3—Solo, "Somewhere"...... ...... *W. S. Holstead*
4—Coon song, "Crocodile Isle"... . *F. D. Flynn*
5—Quartette, "Annie Laurie"...*J. P. Avis, W. C. Poore, E. A. Keeling, W. H. South*
6—Coon Song, "All In, Down and Out"...*W. V. O'Reilly*
7—Solo, "Asthore"........... *W. F. Bennyhoff*
8—Coon Song, "All I Get is, Much Obliged to You"...*H. A. Tiernan*
9—Solo, "The Shoogy-Shoo"........*H. E. Ham*
10—Quartette, "Dear Old Girl"...*J. P. Avis, W. C. Poore, W. H. South, E. A. Keeling*
11—Closing chorus, "The Good Old U. S. A." . *By the troupe*

Selection—"Popularity" (Cohan) *Orchestra*

SECOND PART

1—Clog Dance .. ..*Tom Garrett*
1—Monologue...............................*J. C. Parsons*
3—Mandolin and guitar duet......*W. E. Tragsdorf, A. S. McLaren*
4—Song and dance . . .. *H. A. Moore*
5—Reminiscences.. .. ..*R. A. Stewart*
Wm. H. Baxley
F. X. Ward
F. D. Flynn
W. C. Poore
W. S. Holstead
B. L. Jacobson
6—Finale. .. . .*Orchestra*

The following are the members of the organization:

Interlocutor .. .. *R. M. Sands*

END MEN

J. C. Parsons
W. V. O'Reilly
F. D Flynn
H. A Tiernan

MIDDLE MEN

W. S. Holstead
W. H. South
H. B. Avis
F. S. Wickman
W. F. Bennyhoff
E. A. Keeling
J. C. Kittell
Hugh MacPherson
H. E. Ham
J. P. Avis
F. X. Ward
C. R. Ensey
T. G. Demoll
W. C. Poore
B. L. Jacobson
J. H. DePew
J. N. England
D. G. Gooman

Tom Garrett
A. S. McLaren
W. E. Tragsdorf
H. A Moore
R. A. Stewart

Directors. ..*J. C. Parsons, R. A Stewart*

ACCOMPANISTS

M. L. Robb
C. E. Jennings
J. W. Talty
A. J. MacNeill

Designer of Stage and Motto *H. H. Baumer*
Electrician.... ....*S. G. Forbes*

Gorgona Athletic Association.

A meeting of representative men of Gorgona was held in the office of Mr. C. L. Parker, on Friday evening, November 8, for the purpose of organizing an athletic association for the promotion of out-of-door athletic sports such as baseball, etc., and the acquisition and maintenance in Gorgona of a suitable park wherein to hold athletic meetings of various kinds. The following is a resumé of the proceedings.

In the absence of an organization, Mr. H. C. Dew, manager of the Gorgona baseball club, acted as chairman *pro tempore* and Geo. E. Moore as secretary *pro tempore.*

The meeting being called to order by the chairman, Mr. M. K. Jones, a director of the Empire Park Association, Empire, was asked for information relative to the experiences of that organization in their inception to enlighten and guide the meeting in the work before them, and after several other well-informed gentlemen had imparted to those present their knowledge and views as to the best manner of procedure. The following resolutions were adopted:

First—That a committee be appointed for the purpose of perfecting a permanent organization, attending to incorporation, interesting capital and furthering the project to a successful financial and sound business basis.

Second—That the proposed association be incorporated with a minimum capitalization of $4,000 gold.

Third—That, the capital stock of the proposed associotion be divided into 400 shares of a par value of $10 per share, fully paid and non-assessable.

Fourth—That a subscription limitation of ten shares of stock in the proposed association be made to any one individual.

It was then suggested that a Committee of Promotion and Publicity be appointed, which was done with the following personnel:

Mr. R. W. Hebard, chairman; Mr. H. C. Dew, secretary; Mr. C. L. Parker, Mr. E. C. Cummings, Mr. Chas. S. Manning, Mr. Thos. E. Speight, Mr. J. B Cooper, Mr. E. M. Robinson.

A motion was then adopted that all present should be given an opportunity to subscribe for stock, whereupon the books were opened and subscriptions were tendered and recorded for 145 shares, amounting to $1,450.

Representatives from the Empire Park Association, the Empire Baseball team and the M. P. & M. Baseball team of Empire, were present, and stated that they were authorized to subscribe for a total of 200 shares Gorgona was thankful for the offer but it was decided to table them.

Upon the completion of the recording of stock subscriptions, the chairman, *pro tempore*, suggested that the Committee of Promotion and Publicity hold its first meeting on Monday evening, November 11, at 5 o'clock sharp, which was agreed to.

The meeting then adjourned. The president *pro tempore*, will give notice of the next meeting.

Geo. E. Moore,
Secretary pro tem.

Approved
H. C. Dew.
President, pro tem.
Gorgona, Nov. 9.

SOCIAL LIFE OF THE ZONE.

General Activities of the Women's Clubs.

Each week brings fresh interests in the Women's clubs in the Zone. New names are constantly being presented and the scope of work enlarged, suggestions being eagerly seized and acted upon in accordance with the special needs of each individual organization.

During the past week a number of talks have been given in several clubs on the work of other organizations in the chain and it was observed that each club took up the points especially adapted to its own community and several new measures of usefulness were adapted.

The interest displayed in the study of Spanish was universal and in several of the organizations this promises to be the most useful and prominent feature of club life. In all the communities, the club influence is making itself felt in social life, in the increased spirit of contentment and broadening of the lives of the women. In this respect, the efforts and work necessarily expended for maintaining the organization are well repaid. One of the most gratifying features of the movement is the interest that the men are taking in it. Not only the unmarried men who greatly appreciate the increased opportunities for social intercourse but the married men as well, give every encouragement to their wives to take an active part in the work.

There it a general feeling of satisfaction in the action taken by the Cristobal Woman's Club in the recent resolution quoted in last week's issue of THE CANAL RECORD, that the women should unite in fostering favorable instead of adverse criticism of conditions in the Zone and on the Isthmus of Panama. Several of the clubs have already taken action on this and expressed their intention to support the Cristobal club in this movement.

A great need is felt for intercourse among clubs which could be brought about in the way of invitations extended from one organization to another for social occasions. This would accomplish, not only the object for which the clubs were organized, *i. e.*, to unite the women in social and educational influence, philanthropic work and musical and literary study, but would afford opportunity for the exchange of ideas, and the study of the methods and work of the other organizations. The general meeting of the Zone Federation of Women's Clubs, which takes place quarterly, different towns being appointed for each meeting, will be beneficial in this respect, but it is greatly desired that the exchange of courtesies among the organizations will be arranged as frequently as is convenient with club work. It is generally understood that business shall be transacted in closed meetings, and that invitations shall be extended for social occasions.

The social meeting of the Gorgona club on November 5 was well attended. Miss J. Macklin Beattie gave a short, informal talk on the American Woman's club and some special features of American colony life in Berlin, Germany. A discussion of the work of the club followed, the president, Mrs. Frank Morrison, presiding. This club is desirous of taking up the horticultural movement, members applying their efforts to beautifying public grounds and squares of their town. The meeting was adjourned for the informal reception during which ices were served. The remainder of the afternoon was devoted to exercise in the gymnasium. The women of the club are particularly fortunate in having at Gorgona Mr. Louis F. La Rose, the newly appointed Physical Director and Assistant Secretary of the Y. M. C. A. at that place, who aids them in their work if they desire it.

The club had a called business meeting November 7, when it was decided that the Christmas celebration in the town should be one of especial interest. Fuller details of the arrangements which are practically complete, will be given later.

There was a large attendance at the meeting of the Ancon club November 6. The president, Mrs. W. C. Gorgas, presided, and the business proceeded in regular order. The minutes of the previous meetings, read by Mrs. E. F. Quimby, secretary *pro tempore*, were adopted. The reports of the standing committees showed satisfactory progress in organizing the work of each department. Several inquiries have been made regarding the action taken by the club in regard to the school question. One of the points urged is the advisibility of electing a school board, which should include among its numbers, mothers, and others whose opinions pertaining to matters of educational work would be of value, which should visit the schools from time to time and report to the authorities the results of their observations and the progress made. The educational department has suggested the expediency of opening night classes for the study of Spanish and the further suggestion that husbands of members should be admitted to these classes was received with favor, action upon the measure being reserved for later decision.

The home department was able to announce that in connection with the horticultural work, club members desiring slips for planting would be supplied upon sending their names to the chairman, Mrs. H. R. Trask, Corozal. The music department has sent for special music suitable for chorus and quartette work and expects to begin work at once. The literary department is arranging for a current events program to take place at one of the November meetings. In connection with this department a magazine club will be formed.

The literary event of the afternoon was a talk on "What to Do and How to Do It," given by Madam Le Prince. The speaker was founder and former president of the New York Society of Ceramic Art, a society which started with a membership of about one hundred and has since developed into a national league with headquarters in every large city in America. Madam Le Prince gave an interesting survey of the opportunities for the development of art and art life on the Isthmus. She is desirous of founding an art colony among the American women here. At the close of the paper there was an exhibit of the water color work of the speaker. Several visitors were present. Pending other arrangements, the club will continue to hold its meeting at the Tivoli, the courtesy of the use of the parlors having been extended to them for that purpose.

The Paraiso club held its regular meeting November 7, the president, Mrs. J. C. Barnett, presiding. There being no special business before the club, the meeting was of social character. The success of the Hallowe'en party, due to the efforts of the committee of arrangements, of which Mrs. Healy was chairman, was the general topic of conversation. The club is considering a similar entertainment for Thanksgiving Day. A Spanish class is being arranged for and the club expects to commence the study of that language within a short time.

The Pedro Miguel club will give a Japanese tea at their social meeting, November 13, and has extended an invition to the Paraiso club for the occasion.

The Cristobal Woman's Club met on the afternoon of November 6 at 3 30, about thirty ladies being present. The program was in charge of the department of art and literature. Mrs. Frederick Mears read a paper "Notes on Japan" which was followed with interest by all present. Afterwards there was an open discussion when brief comments were made. The next meeting of the club will be on November 13,

The meeting of the Las Cascadas club on November 7 was well attended. It was decided that the club should give a "Pedro" box party, November 16, the proceeds of the entertainment to be devoted to the piano fund.

PERSONAL.

Mr. Richard Reid Rogers, General Counsel for the Isthmian Canal Commission and Panama Railroad Company arrived at Cristobal on the *Colon* on November 7 for a short visit to the Isthmus. He expects to return to the States by the *Panama*, which sails from Cristobal November 24.

Mr. George M. Shontz, Prosecuting Attorney; Mr. E. C. Cummings, Master Mechanic at Gorgona, and Mrs. J. V. C. Comfort were among the passengers returning to the Isthmus on the *Colon* on November 7.

Mr. W. F. Shipley, sales manager of the Commissary Department, Panama Railroad Company, sailed on the *Finance* from Cristobal on November 7, for a business visit of a few weeks to the States.

Tivoli Grounds and Park.

The work of improving the grounds around the Hotel Tivoli is advancing rapidly and when completed they will present a very attractive appearance with their sloping lawns, well made driveways, and beautiful flowers.

The band stand immediately opposite the entrance to the hotel is completed and was used for the first time on Sunday, November 3. Arrangements are being made to have a concert there every Sunday afternoon by the different bands of the Canal Zone.

Tivoli park, with its music, its tennis court, its fine location and proximity to the hotel, is likely to become one of the most popular resorts on the Isthmus.

Concert.

By the I. C. C. Band at La Boca, C. Z., Sunday, November 17, at 2.30 p. m.:

PROGRAM:

1 March	*The Ambassador*	Bagley
2 Selection	*Amorita*	Czibulka
3 Morceau characteristic	*Dixieland*	Sanglear
4 Waltz	*Dream of Heaven*	Bauer
5 Cornet solo	*Somewhere*	Harris
CHAS. E. JENNINGS		
6 Idyl	*Fairy Tales*	Eilenberg
7 Overture	*Morning, Noon and Night*	Suppe
8 Schottische	*Trading Smiles*	Ramsey
9 Novellette	*Jasmine*	Bendix
10 March	*New Rochelle*	Taylor

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Gorgona, C. Z., Sunday, November 24.

HEALTH REPORT FOR OCTOBER.

Continued Favorable Conditions.

To the Chairman, Isthmian Canal Commission, Culebra, C. Z.

Sir: Enclosed, I forward report of the Sanitary Department for the month of October.

As is usual at this time of the year the health conditions are improving. You will notice that as compared with September we have improved death and sick rates. Among white employes, we have an annual death rate for September of 25.72 per thousand; for October 17.05 per thousand. Among the negro employes for the same month, the same figures are 29.79 and 29.22—almost the same. For all our employes the figures are 28.63 and 25.97. Taking the total population, including employes and non-employes, the figures are for the city of Panama 35.66 and 30.91. For Colon 44.04 and 42.84. For the Canal Zone 28.43 and 26.66. For whole population, including Panama, Colon and the Canal Zone—32.93 and 30.19.

The sick rate also shows an improvement, being in September 27.78 sick daily out of every thousand employes, and in October 26.90. Comparing October of 1906 with with October, 1907, the improvement is still more marked. In October of 1906, we had an annual death rate among the white employes of 15.27; in October 1907, an annual death rate of 17.05. Among the negro employes similar figures are 55.20 and 29.22—very little more than half of what it was last year. For all employees 46 68 and 25.97, that is, taking our employes as a whole, the annual death rate for October was 20 per thousand less in 1907 than it was in 1906. For the city of Panama 44.04 as against 30.91, an improvement of 14 per thousand. For the city of Colon 62.04 as against 42.84, an improvement of 20 per thousand. For the Canal Zone 41.85 as against 26.56, an improvement of 15 per thousand. For the total population, Panama, Colon and the Canal Zone 46.40 as against 30.19, an improvement of 16 per thousand.

In October, 1906, we had every day among all our employes 33.62 men sick every day out of every thousand of our employes. In October, 1907, we had 26.90, an improvement of 7; that is, in October, 1906, out of every thousand men, we had every day 7 more sick men than we had in October, 1907.

These figures indicate very satisfactory progress in the health conditions of the Isthmus.

Of diseases during this month, pneumonia caused most deaths—20. Of these 20 deaths 19 were among our negro employes, and 1, an Italian, among the whites. In October, 1906, from this disease we had 34 deaths, 33 among the negroes, and 1, a Colombian, among the whites. The disease which caused the next largest number of deaths was malaria with 11 deaths, 9 among the negroes, and 2 foreigners, among the whites. In October, 1906, from the same disease we had 21 deaths, all among the negroes.

There was a slight increase in the total of the force on the pay roll over that in September, being respectively 41,062 and 41,113. This is the maximum figure which our force has so far reached. In October, 1906 we had 25,445 employes on the rolls. For October, 1907, therefore, we have 16,000 more employes on the rolls than we had for the same month in the preceding year.

No case of smallpox or yellow fever occurred on the Isthmus during the month. It has now been seventeen months since we have had a case of yellow fever occurring anywhere on the Isthmus.

Very respectfully yours,
[Sgd.] Wm. C. Gorgas,
Chief Sanitary Officer.

SANITATION—CITY OF PANAMA.

The several branches of sanitation are being carried on satisfactorily and call for no special comment.

There has been a decrease in beri-beri for the month. In September we had 9 deaths from this disease; in October 2 deaths.

There has been an increase in tuberculosis; 18 deaths in October, as compared with 11 deaths in September.

The health of the community is good, and no contagious diseases were reported during the month.

CANAL ZONE—MOSQUITO WORK AND MALARIA.

As malaria is the principle cause of sickness among the Canal employes, efforts are concentrated toward its reduction. Throughout the Zone the rainfall during October has occurred almost daily, and interferred with the progress of the work. The ground surface at many points has been continually wet and mosquito breeding places formed by seepage waters have been more numerous than ever before. At many points it has been necessary to rely upon treating breeding places with oil containing a small amount of crude carbolic acid.

The seepage water occurring on hillsides and at the foot of slopes has been unusually large, and has made continuous inspection necessary. However, the drain tile already installed has been of great advantage, and has helped largely in keeping down the number of breeding places near settlements. There has been a higher malarial rate at Pedro Miguel and San Pablo than at other points, and at La Boca there has been more malaria than during October of last year. At La Boca conditions will be changed as soon as the new drainage channel is opened. At present the large swampy area can not be drained. At Pedro Miguel large quantities of seepage water are present, and during the coming month the area near Forty-Mile Camp will be tile drained.

The average weekly malarial sick rate (*i. e.* hospital cases) throughout the Zone has been less than 1 per cent during October, and the practical results of sanitary work has been especially marked at Culebra and Gorgona.

At Culebra district, containing over 4,300 employes, there was an average of 17 cases of malaria per week, or about four-tenths of 1 per cent of the employes went to the hospital with malaria, and the sick rate from all causes was less than one-half of that of October of last year.

At Gorgona during October of this year the sick rate has been less than one-third of what it was for October of the previous year; and malarial sick rate (hospital cases) has averaged about 1 per cent per week, and decreased toward the end of the month.

At Lirio, a labor camp in the Culebra district containing 550 laborers in October, 1906, an average of twelve laborers were sent to the hospital each week. This year the population at Lirio was 750 during October, and an average of one laborer per week was sent to the hospital.

For the week ending October 28, 1906, the total hospital sick rate among employes in the Zone was 2.48 per cent.

For week ending October 26, 1907, the total hospital sick rate among employes in the Zone was 1.23 per cent.

During the past three months malaria has been steadily decreasing in the Zone, as shown in the following table:

Week ending—	Percentage of total employes sent to hospital with malaria.	Week ending—	Percentage of total employes sent to hospital with malaria.
Aug. 3, 1907	1.56%	Sept. 21, 1907	1.30%
Aug. 10, 1907	1.69%	Sept. 28, 1907	1.03%
Aug. 17, 1907	1.47%	Oct. 5, 1907	1.25%
Aug. 24, 1907	1.62%	Oct. 12, 1907	.87%
Aug. 31, 1907	1 25%	Oct. 19, 1907	.94%
Sept. 7, 1907	1.43%	Oct. 26, 1907	.76%
Sept. 14, 1907	1.19%		

Of course it is not possible to continue reducing the hospital malarial sick rate in the months to come at the above rate, as recurrent cases and new infections occur.

SCREENING OF HOUSES.

During October, 1906, there existed in the Zone 578 Commission buildings occupied by whites that were screened, and 140 occupied by laborers, mostly colored, that were screened. At the present time there are 947 screened buildings occupied by white gold employes, and 442 occupied by laborers, white and colored.

The screening of the barracks at Forty-Mile Camp in the Pedro Miguel district has just been completed, and it is expected to have the barracks at Cartagenita Camp at Paraiso screened soon.

During the month progress has been made in the protection of the screening on the laborers' barracks. It is difficult to keep such screening intact, and during October it was necessary to make repairs to the metallic screening on 347 buildings. The number of screening repairs to be made will decrease largely as the protection of screening progresses.

In the Gatun district the screening and screen protection at the laborers' camps is nearing completion and a large amount of tile drainage near the camps has been installed. The malarial sick rate at that station has been rapidly reduced during the past three weeks as compared with the previous month, in spite of the fact that it has been necessary to enlarge the area of the swamp near by.

GENERAL HEALTH CONDITIONS, LABORERS' CAMPS, ETC.

The general condition of the laborers' camps and barracks is satisfactory; the buildings are scrubbed and swept out daily. The mess halls and kitchens are kept clean and neat. Nearly all the kitchens have running water and sinks connected with the sewer. The grounds about the buildings are kept clean, and each building is supplied with a garbage can for refuse. At all of the laborers' camps flush closets with sewer connection are in use, and at points whe sewers can not be used, pail closets or pit closets are used. All closets are scrubbed out daily and pit and pail closets are disinfected each day. Nearly all of the laborers' barracks are screened and every effort is being made to keep in good health the occupants of same. The food given to the laborers is wholesome, and each man receives as much as he cares to eat.

GENERAL SANITARY WORK.

Subsoil drainage has been started at Paraiso near the white quarters, and also near the new laborers' camp at La Boca. During the coming month the necessary tile drainage in the districts of Ancon, Pedro Miguel, Empire and Las Cascadas will be started.

Owing to the condition of the unpaved roads, it has been necessary to remove the garbage largely in hand barrows. There are four garbage destructors in operation, and two under construction. Each day 1,007 closets are washed out and disinfected, 3,708 garbage cans are emptied, and 1,080 height-soil cans emptied, washed out and disinfected.

QUARANTINE SERVICE.

During the month practically no change has taken place in the sanitary conditions of the ports in active commercial relations with Panama and Colon. However, a report of a secondary case of yellow fever contracted in a town not far distant from Port Limon made it advisable to reimpose a quarantine on passengers arriving from that port, which is now in effect.

During this period an inspection of Corinte and other places in Nicaragua, as well as Amapala and Puntarenas, was made by the Chief Quarantine Officer, in order to determine as far as possible the actual sanitary conditions of the ports mentioned.

Tug-of-War Teams.

THE CANAL RECORD:

The undersigned, in behalf of the Marine tug-of-war team request this challenge be published in THE CANAL RECORD:

Challenge $100 gold—Open to any tug-of-war team of 8 men, from the following districts: Cristobal, Las Cascadas, Culebra, La Boca, Gorgona, Empire, Paraiso and Pedro Miguel.

The tug-of-war team of the United States Marine Corps stationed at Camp Elliott (Bas Obispo), issues a challenge as above, to be pulled at Camp Elliott on Thanksgiving afternoon. Address all communications to

P. J. GREALY,
Q. M. Sergt, U. S. Marine Corps.

Camp Elliott, C. Z., Panama, Oct. 5.

Canal Zone Stewards' Club.

THE CANAL RECORD:

A meeting of the Canal Zone Stewards' Club (branch of the International Stewards' Association) was held at the Gorgona hotel, November 2. The following officers were elected: President, C. L. Van den Heurk; vice president, T. M. Walsh; secretary and treasurer, Edgar H. de Senan. Board of directors, John Balderaach, G. T. Grosse, and P. M. Scanlan.

This club meets once a month. Its objects are educational, social, and for the advancement of catering on the Canal Zone.

EDGAR H. DE SENAN.

Culebra, C. Z., Nov. 3.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christinn Association.

REPORT FOR OCTOBER, 1907.

Total membership, October 31	1,727
Total increase	62
Total number bowling games	5,319
Average per day	199
Total number pool and billiard games	11,232
Average per day	421
Total income from soda fountain	$1,327.15
Average income per day	$43.16
Number of different men using gymnasium	249
Number enrolled in chess and checker clubs	89
Number enrolled in glee club	29
Number enrolled in dramatic and minstrel clubs	84
Number enrolled in debating clubs	7
Number enrolled in camera club	4
Number enrolled in orchestra club	24
Number enrolled in boxing club	10
Number enrolled in Bible club	18
Number visits to hospital	6
Number enrolled in Spanish classes	65
Number enrolled in mechanical drawing classes	12
Number of Sunday meetings	12
Average attendance	56
Number of educational, practical and travel talks	9
Average attendance	105
Number of imported entertainments	8
Average attendance	259
Number of local entertainments	7
Average attendance	201
Number of functions outside of association management	14
Average attendance	143
Number of afternoons for women	38
Average attendance	16
Number of evening functions to which women were invited	31
Average attendance of women	46
Number of committees	46
Different men on committees	222
Number of letters written at public tables	5,825
Average per day	187
Total attendance at buildings exclusive of functions by outside clubs	23,645
Average attendance per day	766

CRISTOBAL.

An indoor athletic meet was held on Saturday evening, November 9. The program consisted of high jump, running broad jump, pole vault, shot-put, jumping from spring board, tug-of-war, Indian club relay race, and closed with an exhibition game of basket ball.

A dance will be given on Friday evening, November 15, by the newly organized Benedicts club.

There will be a concert by the orchestra of the *Prinz Eitel Friedrich* at the club house on Saturday evening, November 16.

The Woman's Club and the Cristobal Union Church have been invited to co-operate with the Y. M. C. A. in giving a community Christmas festival for the children. A tree and customary Christmas decorations have been ordered from the United States.

GORGONA.

November 3, the anniversary of the Independence of the Panama Republic, was celebrated in enthusiastic fashion. In the afternoon the baseball and Y. M. C. A. teams played a game of indoor baseball in the gymnasium which was very interesting and exciting. The baseball team won and challenged the Y. M. C. A. to another match which was played Friday, November 8 This game was even more exciting than the first, although the score was one-sided, the Y. M. C. A. winning by a score of 20 to 3.

The address by Col. Gorgas on Sunday, November 10, was postponed. The date will be announced later.

The Wrestling club challenges any four lightweight wrestlers on the Isthmus, weight not to exceed 160 pounds.

EMPIRE.

On November 2 the cigar stand was opened with a selection of cigars, candies and chocolate. Only commissary coupons are accepted in payment.

Mr. E. C. Bataille of Panama gave a lecture Friday evening, November 1, on "Some American Contributions to an Old-Time Business," which was enjoyed by a good audience.

The basket-ball goals have been placed in position in the entertainment hall which makes it possible for the organizing of a basket-ball team to compete with other teams of the other Associations.

A Sunday club has been organized with Mr. M. P. Pitts, president; Mr. C. H Henderson, vice-president; Mr. F. W. Conner, secretary. It is the purpose of this club to stimulate appropriate activities about the buildings on Sundays and other work relative thereto. The following are some of the events for November:

November 3, Mr. H. L. Stuntz, Examiner of Accounts, gave an address on "The Keyword to Success." Mr. M. P. Pitts gave a vocal selection.

November 10, Mr. M. J. Stickel, of Cristobal, spoke on the subject "The Man Down and Out." Mrs. Pierson of Gorgona sang.

November 17, Rally Day of the Y. M. C. A.'s of the Zone at Empire. A special program is being arranged. Among the speakers will be Judge H. A. Gudger, Messrs. H. L. Stuntz and Mason E. Mitchell. Special music will be rendered by Mrs. Faure and the Y. M. C. A. male quartette.

Last Wednesday night the Bachelors defeated the Benedicts at bowling with three straight games. The line up was as follows:

Bachelors—R. S. Windsor, captain; H. J. Floyd, J. V. McGimsey, Perry Brown, Harold Williams and G. M. McAdam.

Benedicts—J. F. McTyier, captain; D H. McCollough, W. H. Whaler, F. L. Gorbam, W. H. Hall and L. A. Durand.

One of the latest improved phonograph has recently been installed in the lobby of the association and is proving an attractive feature.

Empire stands first in membership at the present time with a registration of 500 and also leads in the bowling league.

CULEBRA.

The bowling team defeated empire three straight games on Saturday evening November 2 and are gradually nearing the top of the list. The highest individual score by each member of the team for the week was: Vogel 233, Roberts 216, Oliver 206, Delehanty 198, Lancaster 195 and Winters 194.

The chess and checker club will give a Smoker to all interested in these games in the near future. Officers of the club are: Geo. Strong, president; M. E. Rupp, secretary; Wm. DuBois, chessmaster.

Billiard and pool tournaments for the local championship will be started this week.

The woman's club will give an entertainment on Thanksgiving Eve when they will invite the men of Culebra to be their guests.

The glee club will give a concert on Friday evening, November 22.

Tropical Health Statistics.

A dozen years ago two of the most notorious plague spots in the world were Panama and Manila. To-day it would scarcely be an exaggeration to regard them as health resorts. In the Canal Zone, for example, among the thousands of white employes of the Canal Commission the death rate yearly, reckoned on the basis of last August, one of the worst months of the wet season, is only about 8.57 to the thousand, or less than half as high as in New York. Among the negro employes, for well known reasons, the rate is much higher, reaching 31.26 to the thousand. But even that is an enormous improvement upon the rate of years ago, when it was three or four times as high. In Manila the death rate among the entire population is only about 22 98 to the thousand yearly. That is, of course, high in comparison with the rate in New York and other cities in temperate climes. But it is low in comparison with rates in other tropical cities in which conditions are naturally at least as favorable. Thus in Alexandria the rate is 30.10, and in Cairo it is 34.60; in Calcutta it is 34.40, in Bombay it is 48.60, and in Madras it reaches the appalling height of 58.70. Nor, indeed, is it only in tropical cities that the death rate of Manila is approximated or surpassed. New Orleans rated at 22 to the thousand, is nearly as bad; Venice, with 22.90, just about equals Manila, and Breslau with 23, St. Petersburg with 25, Moscow with 27.90 and Trieste with 28.1, show less favorable conditions than the tropical metropolis of our insular empire.—*New York Tribune*, Oct. 25.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Notice.

THE CANAL RECORD:

Will you kindly insert the following in the next issue:

Will James Mortland, who was employed in the office of the City Engineer at Saginaw, Mich., U. S. A., kindly communicate with W. F. Krause, Paraiso, C. Z., and learn something to his advantage.

W. F. KRAUSE, *Conductor.*

Paraiso, C. Z., Nov. 10.

Isthmian Ministers' Association.

THE CANAL RECORD:

I have been directed to inform you of the establishment of the "Isthmian Ministers' Association," and to request that an announcement of this be made in THE CANAL RECORD.

The following are the charter members: Revs. Cooke, Elkins (president), Eskins, Fletcher, Archdeacon Hendrick, King (secretary), Loveridge, Pearn, Sobey, and Wise (vice president.)

Meetings will be held on the first Monday in each month. In addition to business deemed necessary by the association, a paper will be read by one of the members, or anyone whom the association may see fit to invite, on some topic of interest to the religious or moral conditions on the Isthmus.

M. BRITTON KING, *Sec.*

Panama, R. de P., Nov. 5.

THE CANAL RECORD:

The attached paragraph clipped from your last issue of THE CANAL RECORD is too good a thing to be enjoyed only by the club women of the Zone. I believe that every man on the Isthmus under Col. Goethals, desires to adopt the spirit of this resolution presented by Mrs. Mears, at the last meeting of the Cristobal Woman's Club:

> *Be it, Resolved,* That every club woman in the Canal Zone constitute herself a committee of one to foster favorable instead of adverse criticism of the conditions of the Zone and of the Isthmus of Panama.

Let us hope they will permit every American employe in the Canal Zone to join hands with them on this committee.

WALTER E. STEPHENS.

Ancon, C. Z., Nov. 7.

Walking Match Across the Isthmus?

THE CANAL RECORD:

Could you find space to inform some of us whether there is any record of time taken by any man on foot from the Atlantic to the Pacific on the Isthmus here.

If so, I think it would be one good way to break the dull monotony of life here on the Zone, to offer a suitable prize or purse, to break such record, if any, or to create an original one, within a specified time or number of hours, say on Thanksgiving Day, a small entrance fee to be paid by each contestant.

Should any one fail to enter I will attempt to make it within any reasonable time mentioned, considering the roughness of the road, for a fair offer if successful, failing, nothing. Match to be from nearest high water mark of Atlantic at Cristobal to same at Panama, along main line *only* of Panama railroad, or vice versa.

HENRY M. MCKEOWN.

Gorgona, C. Z., Nov. 5.

Longevity Pay.

THE CANAL RECORD:

In the first issue of THE CANAL RECORD, which came into my hands to-day, I notice under a heading "Longevity Regulations" an item relating to the increase of pay of employes of the Commission, of certain classes, which was to take effect August 1, 1907. I wish to say that I entered the employ of the Commission on the Isthmus on September 12, 1905, and have since been so employed. Now, as I understand this item, I come under this class in the capacity of carpenter, and therefore am entitled to the percentage referred to, as I have already served over two years. I was on leave of absence when the first copy of THE CANAL RECORD was distributed, so I did not see it till now. May I ask if I am correct in supposing that I am entitled to this increase in pay in the same way that it has been granted to other men in the same line of work whom I know have received it? And if so, what course to pursue in order to obtain it? I am at present employed in the Department of Labor, Quarters and Subsistence, and am rated as foreman carpenter.

WALTER H. STEVENS.

Ancon, C. Z., Nov. 4.

[You should make application through the head of your department.]

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Nov. 13, 1907.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Armstrong, Robert
Black, Charles
Davis, Cleon L.
Filcher, Ed (2)
Hall, David
Kipps, Lieut. H. H.
McKee, Arnold E.
Putnam, Lee
Stewart, W. B.
Turner, Fred K.
Barrie, Charles J.
Blackbarn, Dr. Rich. S.
Dykstra, Nick
Fleckstein, John L.
Heguer, Walter A.
Madoery, Arnold
O'Brien, Thomas
Sloan, Samuel S.
Toral, Jose M.
Wirtz, William

COMMISSARY DEPARTMENT.

EFFECTIVE AT ONCE.

No delivery of cold-storage supplies or commissaries will be made to purchasers from the Commissary, residing in the city of Panama. Such persons must call at the station for their goods and sign way-bill covering them.

JOHN BURKE,
Manager.

COMMISSARY PRICES

For week ending November 7:

FRESH MEATS.		Price. cts.
Beef, sirloin, roast	*per lb...*	*25*
Beef, rump, roast	*do*	*25*
Beef, Porterhouse	*do*	*25*
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	*17*
Beef, rib-roast, second-cut	*do*	*15*
Beef, chuck-roast	*do*	*12*
Beef, soup	*do*	*7*
Beef, stew	*do*	*10*
Beef, corned	*do*	*10, 12, 14*
Beef, corned, sirloin butts, all lean	*do*	*16*
Beef, corned, fancy boneless brisket	*do*	*18*
Steaks, sirloin	*do*	*25*
Steaks, Porterhouse	*do*	*25*
Steaks, rump	*do*	*25*
Steaks, tenderloin	*do*	*22*
Steaks, round	*do*	*12½*
Veal, cutlets	*do*	*23*
Veal, short-cut chops	*do*	*22*
Veal, loin	*do*	*14*
Veal, entire forequarters	*do*	*10*
Veal, for stewing	*do*	*10*
Mutton, entire forequarters,	*do*	*10*
Mutton, short-cut chops	*do*	*19*
Mutton, leg	*do*	*17*
Lamb, for stewing	*do*	*11*
Lamb, entire forequarters	*do*	*11*
Lamb, short-cut chops	*per lb...*	*27*
Lamb, legs	*do*	*24*
Pork, cuts	*do*	*20*

MISCELLANEOUS.

Livers, beef	*per lb...*	*9*
Livers, calf	*apiece...*	*50*
Sausage, pork	*per lb...*	*16*
Sausage, Frankfurt	*per lb...*	*16*
Sweet Breads, veal	*each*	*$1.20*
Sweet Breads, beef	*per lb*	*25*
Oysters, ½-gallon kegs	*each...*	*70*
Oysters, quart tins	*do*	*45*
Pickled pig's feet	*per lb...*	*6*
Tongue beef	*do*	*13*
Tongue pig	*do*	*12*

POULTRY AND GAME.

Chickens, dressed (milk-fed).	*each...*	*$1.20*
Fowls	*do*	*†75*
Turkeys	*per lb...*	**26*
Broilers, frys (chicken)	*each...*	*80*
Squabs	*do*	*45*
Ducks (fatted)	*do*	**1.20*
Eggs, fresh	*per dozen*	*35*

CURED MEATS AND LARD.

Bacon, strips per lb	*per lb...*	*23*
Bacon, English breakfast, slic'd	*do*	*§26*
Ham, sugar-cured, sliced	*do*	*§25*
Ham, one-half (for boiling)	*do*	*§20*
Ham, Yorkshire (imported).	*do*	*25*
Hams, Westphalia	*do*	*45*

DAIRY PRODUCTS.

Butter, prints, prime quality.	*per lb...*	**38*
Cheese, Camenbert	*each*	*28*
Cheese, Phila		*22*
Cheese, Neufchatel	*do*	*6*
Cheese, Roquefort.	*per lb.*	*45*
Cheese, Young America	*do*	*22*
Cheese, Swiss	*per lb...*	*30*
Cheese, Gouda	*do*	*30*
Cheese, Cheddar loaf	*do*	*32*
Cheese, Edam	*each...*	*90*
Milk, fresh	*per quart*	***15*

FRUITS AND VEGETABLES.

Apples	*per lb...*	**4½*
Limes	*per hundred*	*30*
Bananas	*per dozen*	*5*
Oranges	*per dozen*	*12*
Pears	*per lb..*	**11*
Grape Fruit	*each...*	*3*
Cranberries	*per lb*	**12*
Malaga Grapes	*per lb*	*12*
California Grapes	*do*	*8*
Cantaloupes	*each*	*10*
Apples, fancy table	*per lb..*	*8*
Cucumbers	*per lb...*	*†12*
White potatoes	*do*	*2*
Cabbage	*do*	*2*
Turnips	*do*	*3*
Lettuce	*do*	**10*
Onions	*do*	*2*
Cauliflowers	*do*	**6*
Tomatoes	*do*	*5*
Yams	*do*	*2½*
Sweet Potatoes, American..	*do*	*2*
Carrots	*do*	*3*
Egg Plants	*each*	*9*
Beets	*per lb*	*4*
Radishes	*do*	*8*

** Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries.

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	*New Price.* CTS.
Sweet potatoes....	*per lb...*	*2½*	*2*
Fruits in brandy, Geo. Dallidet & Co.	*per bot.*	*45*	*35*
Fruits in brandy, Rodel & Fils Freres	*do*	*75*	*45*
Prunes, table, French, Dallidet & Co. 1s	*per jar..*	*18*	*27*
Prunes, table, French, Dallidet & Co. 2s	*do*	*30*	*55*

NEW ARTICLES.		*Price* CTS.
Powder, face, Lablache's, stock No. 37,742	*per box*	*40*
Sheeting, linen, stock No. 37,729	*per yard*	*65*
Tape, Hercules, white, cotton, stock No. 37,727	*bundle*	*10*
Towels, Honeycomb, 20x42, m8925, stock No. 37,734	*each*	*20*
Towels, Honeycomb, 20x42, m8939, stock No. 37,735	*do*	*10*
Thread, Clark's, cotton, black and white, 400 yards, stock No 37,725	*spool*	*6*
Tweed suitings, 56-inch, m81,688, stock No. 37,736.	*per yard*	*$2 60*
Tweed suitings, 56-inch, m81,687, stock No. 37,737.	*do*	*$2 60*

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Mr. H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Sydney B. Williamson, Division Engineer, La Boca.
E. A. LeMay, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
E. H. Hale, Chief Clerk.
Geo. L. Campen, Water Commissioner, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
Acting Prosecuting Attorney: Thomas E. Brown, jr., Ancon.
Translators: F. H. Sheibley and Charles M. Brown.
M. C. Rerdell, Senior District Judge, Culebra.
Thomas E. Brown, jr., District Judge, Cristobal.
J. M. Fernandez, District Judge, La Boca.
R. B. Myers, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry C. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chiet Clerk.
J. M. Maguire, Ancon; C. C. McColley, Empire; Chas. L. Parker, Gorgona; Edgar Lowe, Cristobal, division superintendent

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

DIPLOMATIC CORPS.

Ministers Residing at Panama.

H. G. Squires, United States.
Claud Coventry Mallet, Great Britain.
Antonio da Fontaura Xavier, Brazil.
A. J. de Amarol Murtinho, Secretary, Brazilian Legation.

Chargé d'Affaires.

Henry Moet, France.
M. Leon Huttinot, ad interim, France.
Federico Alfonso Pezet, Peru.
Alberto Bresani Rossel, Attache.
Federico Boyd, Nicaragua.
E. Pollet, residing in Guatemala, Belguim.
J. H. Rens, residing in Caracas, Netherlands.

CONSULAR CORPS.

Consuls Residing at Panama.

Arnold Shanklin, Consul General, United States (and in charge of interests of Greece and China.)
Felix Ehrman, Vice Consul-General, United States.
Caspar L. Dreier, Deputy Consul-General, United States.
Samuel Boyd, Consul-General, Bolivia.
Jose Fernanda Arango, Consul-General, Guatemala.
Federico Boyd, Consul-General, Salvador.
B. D Fidanque, Consul, Belgium.
Ramon Arias F., Consul, Brazil
Louis Uribe, Consul, Costa Rica.
J. Gabriel Duque, Consul, Cuba.
J. L. Maduro, Consul, Denmark.
Mauricio Fidanque, Consul, San Domingo.
Arturo Kohpcke, Consul, Germany and Italy.
Jose Maria Aramendia, Consul, Mexico.
Dr. A. Jesurun, Consul, The Netherlands.
Juan Potous y Martinez, Consul, Spain.
Coronel S. McGill, Consul, Venezuela.
Thomas Broadwood, Vice-Consul, Great Britain.
Pedro Arias F., Vice-Consul, Ecuador.
Albert Ritt, Vice-Consul, France.
Dr. Augusto S. Boyd, Vice-Consul, Nicaragua.
Edwin Hunter Melville, Vice-Consul, Norway
Alberto de Obarrio, Consular Agent, Peru.
Ernesto A. Boyd, Vice-Consul, Salvador.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Prinz Sigismund	H.-A.	Saturday	Nov.	16
Orinoco	R.M.	Saturday	Nov.	16
Dunottar Castle	P.RR.	Monday	Nov.	18
Finance	P.RR.	Friday	Nov.	22
Altai	H.-A.	Saturday	Nov.	23
Colon	P.RR.	Wednesday	Nov.	27
Prinz Eitel Friedrich	H.-A.	Saturday	Nov.	30
Atrato	R.M.	Saturday	Nov.	30
Advance	P.RR.	Monday	Dec.	2
Venetia	H.-A.	Saturday	Dec.	7
Panama	P.RR.	Monday	Dec.	9
Dunottar Castle	P.RR.	Saturday	Dec.	14
Prinz Sigismund	H.-A.	Saturday	Dec.	14
Trent	R.M.	Saturday	Dec.	14
Finance	P RR.	Thursday	Dec.	19
Altai	H.-A.	Saturday	Dec.	21
Colon	P.RR.	Tuesday	Dec.	24
Prinz Eitel Friedrich	H.-A.	Saturday	Dec.	28
La Plata	R.M.	Saturday	Dec.	28
Advance	P.RR.	Monday	Dec.	30

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Colon	P.RR.	Wednesday	Nov.	13
Advance	P.RR.	Monday	Nov.	18
Prinz Eitel Freidrich	H.-A.	Tuesday	Nov.	19
Atrato	R.M.	Wednesday	Nov.	20
Venetia	H.-A.	Saturday	Nov.	23
Panama	P.RR.	Sunday	Nov.	24
Dunottar Castle	P.RR.	Friday	Nov.	29
Prinz Sigismund	H.-A.	Tuesday	Dec.	3
Finance	P.RR.	Wednesday	Dec.	4
Trent	R.M.	Wednesday	Dec.	4
Altai	H.-A.	Saturday	Dec.	7
Colon	P.RR.	Tuesday	Dec.	10
Advance	P.RR.	Sunday	Dec.	15
Prinz Eitel Friedrich	H.-A.	Tuesday	Dec.	17
La Plata	R.M.	Wednesday	Dec.	18
Panama	P.RR.	Saturday	Dec.	21
Venetia	H.-A.	Saturday	Dec.	21
Dunottar Castle	P.RR.	Thursday	Dec.	26
Finance	PRR.	Tuesday	Dec.	31
Prinz Sigismund	H.-A.	Tuesday	Dec.	31

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Orinoco	R.M.	Tuesday	Nov.	26
Atrato	R.M.	Tuesday	Dec.	10
Trent	R.M.	Tuesday	Dec.	24

The Panama railroad steamships sail at 3 p.m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 2 p.m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *William Cliff*, about November 19, and steamers (names not yet known) about December 9 and about December 21.

CANAL RECORD

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The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

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THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

Chairman's Monthly Report.

The report of the Chairman of the Isthmian Canal Commission for October is published in full in other columns of this issue of THE RECORD. It gives specific information as to the progress of Canal construction in all divisions of the work, together with official figures of excavation, trestle building, etc. It shows that the total amount of material excavated in the Culebra Division during the month of October was about two and a half times the amount removed in October of last year, and that the average output per shovel was about 55 per cent greater. The proportion of rock and earth was about the same in October of this year as in the same month last year. The rainfall this year was nearly three times as great as that of October a year ago.

The daily average number of laborers at work was 7,840, an increase of 1,061 over the average for September. Work on the Cucaracha slide had so advanced at the end of October that more material was being removed than was coming into the Canal. In the estimate submitted in April last of the amount of material yet remaining to be excavated before the completion of the Canal an allowance of 500,000 cubic yards was figured to cover all influx of material from the Cucaracha slide. This estimate appears ample and it is not believed that it will be necessary to remove two-thirds of the amount mentioned.

The work of increasing the capacity of the Rio Grande reservoir was practically completed at the end of October. The most striking feature of the climatological record was the marked increase of rainfall over the entire Isthmus, it being the third largest rainfall of record. At the close of the month the effective force of the Commission was 25,915, and of the Panama railroad, 6,139, a total of 32,054. This is the largest force employed on the Isthmus since the inception of the Canal work under the French. On April 25, 1907, there were 25,317 men at work for the Commission, and 5,249 for the Panama railroad, which was the largest number of employes up to that date. From that time the force steadily diminished to 22,000 men in July, when it began to rise again. The movement of labor during the month was small; fewer Europeans were brought in than at any time since operations began. The independent immigration was not large. There was as a small movement of Spaniards from Cuba. In all 750 new laborers arrived, only 165 of whom were Europeans.

The financial results of the subsistence operations were more satisfactory than they were in September, when there was a deficit. The receipts at the hotels, including the Hotel Tivoli, and at the European messes were larger than ever before, while the kitchens remained practically stationary. Operations for the first four months of the present fiscal year showed a net profit of $5,817.05, excluding the Washington hotel.

The average daily consumption of water in the city of Panama during October was 755,290 gallons, as compared with 731,300 in September. In Colon the consumption was 426,695 gallons, as against 497,808 in September. The collections in Panama on account of water rents for the quarter ending September 30 amounted, during the month of October, to $12,805.45, and in Colon they amounted to $2,999.25.

Transit Time and Leave Pay.

The amount included in the pay roll of the Mechanical Division alone, during the month of October, to cover pay of employes in transit to and from the United States, for vacation leave in the United States, and for sick and injury leave, aggregated $11,302.53 divided as follows:

Transit time	$3,477 92
Vacation leave	2,095.47
Sick and injury leave	5,729.14
Total	$11,302.53

This sum was nearly 6 per cent of the entire pay roll of the Division for the month.

A Hidden Village.

An entire village built by the French during their occupation of the Isthmus and completely buried by the dense jungle growth of twenty years, has been discovered at Caimito Mulato by the engineering force that is locating the center line of the Canal in the Chagres Division. It contains nine sets of married quarters, twenty-two barracks and mess halls, and a small machine shop. A majority of the buildings were in sufficiently good condition to be worth preservation, and are now undergoing repairs. The machinery in the machine shop was in good condition. Some of the smaller parts had been taken away. These will be replaced and the machinery will be overhauled and put in use. It includes a boiler and engine, lathe, shaper, and several drill presses. The discovery of the village was a complete surprise to the engineers, for while its location is shown on some existing maps, very few of the present Canal workers were aware of the fact.

Jungle Discoveries.

The engineering force engaged in establishing the center line of the Canal prism has come across a great many relics of the French régime, buried from sight by the jungle growth. Near Tabernilla a large excavator was found. This has a bridge 250 feet long for the carrying of material overhead from the excavator to a dump which was outside of the line of the old French Canal. As the American Canal is wider than that proposed by the French at this point, the mounds thus formed on either side of the trench will have to be removed. At Caimito Mulato, the circle, boom and dipper of an old dipper dredge were found. This is supposed to be of American make and to have been brought here for use by the French. It is said that there were about ten dipper dredges similar to this in use on the Canal during the latter days of French activity, but there is no direct confirmation of this. The discovered dredge is in poor condition and of such an obselete type that it is not worth rehabilitating.

The work of the center line force is the running of a narrow trocha along the center line of the Canal from the Atlantic Ocean to the Culebra Cut. Wherever the ground is above the grade of 40 feet, lines are run at right angles to the center line every 100 feet, reaching beyond the outside of the Canal prism. The work has advanced as far as San Pablo.

New Steam Shovels.

The seven 45-ton steam shovels under contract with the Bucyrus Company have been delivered on the Isthmus and are being erected as fast as possible. There remain to be delivered on outstanding orders, fourteen 70-ton shovels and sixteen 95-ton shovels. When these shovels are put in commission there will be a corresponding increase in the yardage.

Contract vs. Day Labor in Building.

In order to afford a comparison of the cost of building construction by contract, as against day's labor, proposals will shortly be called for, covering the construction of one or more of the Commission type quarters on the basis of all material being furnished by the Government at the site and all labor being furnished by the contractor. Due notice of the receipt of proposals will be given in THE CANAL RECORD and posted on bulletin boards along the line of work.

THANKSGIVING.

The President's Proclamation.

Once again the season of the year has come when, in accordance with the custom of our forefathers for generations past, the President appoints a day as the especial occasion for all our people to give praise and thanksgiving to God.

During the last year we have been free from famine, from pestilence, from war. We are at peace with all the rest of mankind. Our natural resources are at least as great as those of any other nation. We believe that in ability to develop and take advantage of the resources the average man of this nation stands at least as high as the average man of any other. Nowhere else in the world is there such an opportunity for a free people to develop to the fullest extent all its powers of body, of mind and of that which stands above both body and mind—character.

Much has been given us from on high and much will rightly be expected of us in return. Into our care the ten talents have been intrusted; and we are to be pardoned neither if we squander and waste them nor yet if we hide them in a napkin, for they must be fruitful in our hands. Ever throughout the ages, at all times and among all peoples, prosperity has been fraught with danger, and it behooves us to beseech the Giver of all things that we may not fall into love of ease and of luxury, that we may not lose our sense of moral responsibility, that we may not forget our duty to God and to our neighbor.

A great democracy like ours, a democracy based upon the principles of orderly liberty, can be perpetuated only if in the heart of the ordinary citizen there dwell a keen sense of righteousness and justice. We should earnestly pray that this spirit of righteousness and justice may grow ever greater in the hearts of all of us, and that our souls may be inclined evermore both toward the virtues that tell for gentleness and tenderness, for loving kindness and forbearance, one with another, and toward those no less necessary virtues that make for manliness and rugged hardihood—for without these qualities neither nation nor individual can rise to the level of greatness.

Now, therefore, I, Theodore Roosevelt, President of the United States, do set apart Thursday, the 28th day of November, as a day of general thanksgiving and prayer, and on that day I recommend that the people shall cease from their daily work, and in their homes or in their churches meet devoutly to thank the Almighty for the many and great blessings they have received in the past, and to pray that they may be given the strength so to order their lives as to deserve a continuation of these blessings in the future.

In witness whereof I have hereunto set my hand and caused the seal of the United States to be affixed.

Done at the city of Washington, this 25th day of October, in the year of Our Lord one thousand nine hundred and seven and of the independence of the United States the one hundred and thirty-second.

THEODORE ROOSEVELT.

By the President:

ELIHU ROOT,
Secretary of State.

Secretary Taft's Plans.

Secretary Taft's visit to the Philippines terminated on November 9, when he sailed for Vladivostock. A dispatch from Washington to the New York *Tribune* under date of November 7 says:

Secretary Taft will visit London on his return trip from Manila. He will also make a brief trip to Paris, where he will meet the President of France.

This was stated to-day at the White House, where it was announced that it was now definitely settled that the Secretary would return via Vladivostock and St. Petersburg.

It is not known definitely if the Secretary will call on Emperor William in Berlin, as it is quite possible that the Emperor may be in the Isle of Wight when Mr. Taft reaches the German capital. The Isle of Wight is only two hours distant from London, however, so that it is deemed more probable that the Secretary will go there, as he could go and return the same day, and would doubtless see the Emperor with less formality than would attend an audience in Berlin. The Emperor has extended an invitation to Mr. Taft to visit him at either place, according to the date of his arrival.

Accidental Explosion.

An accidental explosion in the Cut on Friday last resulted in the death of two colored laborers and came near to causing loss of life in the town of Culebra. A small charge of powder had been placed unknowingly near an unexploded charge of dynamite of about 250 pounds. When the former was fired the latter exploded, and as it was only 12 feet below the surface in a stratum of soft rock, a large quantity of the overlaying material was shattered and thrown to great distances in the air, principally in the direction of the town of Culebra. Fragments of rock fell upon a number of buildings including the Administration Building, the Commission club house, the Culebra hotel, the Commissary building and various family and bachelor quarters. Some of the heavier pieces passed entirely through the roofs, and as a result there were several narrow escapes on the part of the occupants.

This is the first accidental explosion involving loss of human life which has occurred in the Culebra Division since June 10, 1907, over five months previous, and in this period over 2,500,000 cubic yards of rock have been blasted, and over 1,400,000 pound of explosives have been fired.

CENSUS OF COMMISSION QUARTERS.

An enumeration of the inhabitants of quarters supplied by the Isthmian Canal Commission, which was completed by the Department of Labor, Quarters and Subsistence in the latter part of October, showed the total number to be 23,841. Of this number 6,447—men, women and children (mainly Americans)—were in gold employes' quarters; 12,441 were West Indians, and 10,620 were Europeans. The distribution of these tenants of the Commission among the various towns of the Zone is shown in the following table:

OCCUPANTS OF I. C. C. QUARTERS.

Towns	*Gold employes*			*West Indians.*			*Europeans.*		
	Men	Women	Children	Men	Women	Children	Men	Women	Children
La Boca	196	28	25	486	20	19			
East La Boca							184	3	5
Ancon	294	104	61	329			192		
Corozal	84	23	15	162			190		
Miraflores	6			62					
Pedro Miguel	166	55	30	18					
Pedro Miguel Junction				60			598		
Pedro Miguel Tank				82	41	21			
Cartagenita				252	28	18	7	1	
Cucaracha				83	25	25	183	5	5
Paraiso	286	63	60	237	98	62	1	1	2
Culebra	671	191	174	1,434	165	80	708	37	53
Empire	680	125	99	1,043	181	119	861	21	20
Las Cascadas	283	59	45	530	74	51	379	20	20
Gorgona	722	112	56	80					
Caballo Viejo				556	6	2			
Juan Grande				11	1	2	175	1	2
Mamei				62			34		
Matachin				38	14	22			
Bas Matachin				68			16		
Jamaica Town				301	90	100	235		
San Pablo	77	6	14	248			280		
Caimito Mulato				212					
Santa Cruz				159					
Chagres							214	5	3
Bas Obispo	107	24	8						
Haut Obispo	1	1		150			199		
Tabernilla	133	17	11	775	34	38	397		
Bohio	7	5	5	27	30	32			
Gatun	272	59	63	1,095	38	28	876	10	10
Cristobal	722	110	92	2,050	213	176			
Totals	4,707	982	758	10,620	1,067	754	4,729	104	120
	285(1)			5,082(2)			405(3)		
	4,992			15,702			5,134		

(1) Two hundred and eighty-five gold employes do not live in Commission quarters; covers those who live in outside hotels or in the cities of Colon and Panama.

(2) Five thousand and eighty-two colored employes do not live in Commission quarters; covers those whose homes are in the cities of Colon or Panama, as well as those who have acquired homes in the Zone.

(3) Four hundred and five European employes do not live in Commission quarters; covers those whose homes are in the cities of Colon or Panama, as well as those who have acquired homes in the Zone.

This gives a grand total of 29,613 persons of whom the Department has official knowledge.

SOCIAL LIFE OF THE ZONE.

Preparations for Christmas and the January Meeting of Zone Federation of Women's Clubs Already Under Way.

The Cristobal Woman's Club has under way active preparations for the year's work. The departmental organization is about completed and the work well in hand. All business and preliminary work of organization has been concentrated and brought to order in a surprising short time. The departments are divided into the four heads as follows: Home, Mrs. John Burke, chairman; Mrs. Effelsheimer and Mrs. Hedman, directors. Philanthropy, Mrs. M. C. Kerdell, chairman; Mrs. Dyer and Mrs. Body, directors. Art and literature, Mrs. Frederick Mears, chairman; Mrs. Carter, director. Education, Mrs. Hermann.

Mrs. E. Lewis Baker is chairman of the program committee. The social committee has charge of the arrangements for the club meetings, introducing and receiving, and presiding at the tea table.

The year's program will contain a number of valuable and helpful talks. A wide range of subjects will be covered, among them "The Study of Japan and Its People, its Music, Art and Literature;" the schools, what to do with our boys and girls; the influence of home life and training and the best way of applying the useful lessons of life in the home; books in their various aspects and influence. Each paper to be followed by an open discussion in which all are urged to take part.

The club has adopted a very complete set of by-laws which are made to suit conditions as the club develops and broadens its scope of work. It is felt that there is a broad field in the philanthropic department for settlement work in the community and this will be taken up under investigation and advice.

Two entertainments are being contemplated; a concert will be given in December and a dramatic entertainment to be arranged for later.

It is felt that there is a field and a great desirability to develop the musical life in the Zone. This could be done by interchange of talent among the clubs, papers could be read and passed from one club to the other, a musical committee could be formed, and concerts given at the different towns from time to time. The study of music and the history of music could be made a part of the club work.

There will be a meeting of the officers of the Canal Zone Federation of Women's Clubs at the Commission club house, Cristobal, November 23, at 2.30 p. m., when arrangements for the meeting of the delegates in January will be made.

The citizens of Gorgona are preparing for their Christmas celebration in good time. A large tree has already been ordered from the United States which will be set up in the entertainment hall of the Commission club house and lighted with electric lights. Every white child in the community is to receive a present. Money to defray all expenses of the celebration has been subscribed by the citizens, and the Woman's Club has been asked to assist in taking charge of the program. A special called meeting of the club has been held and the work organized by the appointment of the following committee:

Program, Mrs. Jack Fogarty, Mrs. C. Pierson, Mrs. R. C. Goodale, Mrs Ralph R. Wolf and Miss Laura Faxon.

Enumerating, Mrs. Whiteney, Mrs. Fetterly and Mrs. Kuehnle.

Decorating, Mrs. Frank Morrison, Mrs. Jack Eason, Mrs. Bergstrom and Mrs. Johnson.

The club has decided to spend a part of each meeting in the discussion of current events. The Spanish class is doing good work under Miss Osorio who has been appointed teacher. The philanthropic department is engaged in some special local work.

The Japanese tea which was to have taken place November 13 at the Pedro Miguel club has been postponed indefinitely. The Men's Club at Pedro Miguel has been organized and promises to contribute largely to the social activity of the community.

The Ancon club will hold its regular meeting at the Hotel Tivoli, November 20. In the absence of the president, the vice president, Mrs. J. M. Maguire, will preside. A literary program will be given.

PERSONAL.

Among the passengers on the *Colon* which sailed from Cristobal on November 13 for New York were Dr. and Mrs. T. C. Lyster, of Ancon hospital, who will be away for about six weeks, and Arnold Shanklin, American Consul-General at Panama, who has leave of absence for two months

Mr. Harry D. Reed, Executive Secretary to Governor Blackburn, and J. G. Holcombe, Division Engineer, returned from leave of absence on the *Advance* which arrived at Cristobal on November 14.

Among the passengers who returned to the Isthmus on the *Panama*, which arrived at Cristobal on November 17, were Mrs. Joseph Bucklin Bishop, and Miss Bishop, Dr. Herman Canfield, Assistant Chief Sanitary Inspector, Ancon, and Mr. R. Budd, Engineer of Maintenance and Construction, Panama railroad.

Col. W. C. Gorgas, accompanied by Mrs. Gorgas and Miss Gorgas, sailed for New York on the *Advance* on November 18. Colonel Gorgas will deliver an address on the work on the Isthmus before the Academy of Medicine in New York city on November 29, and will return to the Isthmus almost immediately afterward. Mrs. Gorgas will be absent from the Isthmus until December 16. Miss Gorgas may return with her, or may possibly remain in the States during the winter.

Capt. Horton W. Stickle, Corps of Engineers, U. S. A., has been ordered to Culebra, Canal Zone, for duty in connection with the construction of the Gatun locks, where he will be Assistant Engineer under Major Harding. Captain Stickle is a graduate of West Point in the class of 1899. He was on duty for a time in the Philippines and for the past three or four years has been on duty at West Point, as assistant to the officer in charge of the construction of the new buildings which are in progress of erection for the Military Academy. He will arrive on the Isthmus about December 1.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

CRISTOBAL.

The schedule for educational classes for the ten weeks term which began this week is as follows:

Business arithmetic, Tuesday and Friday, 7 to 8 p. m.; English grammar and composition, Tuesday and Friday, 8 to 9 p. m.; mechanical drawing, Tuesday and Friday, 8.15 to 10.15 p. m; stenography and typewriting (beginning), Tuesday and Friday, 7 to 9 p. m; stenography (advanced), Tuesday and Friday, 7 to 8 p m.; Spanish (beginning), Tuesday and Friday, 7 to 8 p. m.; Spanish (advanced), Tuesday and Friday, 8 to 9 p. m. Mr. E. L. Cook will teach business arithmetic and English; Mr. M. W. Fox, jr., mechanical drawing; M. A. Follman, stenography, and Miss Odina Frost, Spanish.

GORGONA.

The dramatic club expects to give an entertainment entitled "Black Justice" some time during the early part of December.

The Christmas entertainment fund which was started several weeks ago by a committee of Gorgona citizens is increasing rapidly, $150 has already been subscribed and more is expected. Arrangements have been made with Miss Helen Boswell of the National Civic Federation, to purchase holly, a Christmas tree, with decorations and presents.

The program has already been partly decided on. The presents will be distributed to all children in all towns from Bas Obispo to Tabernilla, and the program will be made up especially for children. Santa Claus will be there with several barrels of apples, grapes and other good things.

Mr. F. C. Freeman will be the speaker for Sunday, November 24. Music will be furnished by the Y. M. C. A. quartette and the I. C. C. band.

CULEBRA.

Judge Thomas E. Brown, jr., of Cristobal, will address the meeting for men only, Sunday afternoon, November 24, at 3.30 o'clock. The Culebra quartette will sing.

Gymnasium classes for boys have been started. Instructions will be given for two hours on every Monday, Wednesday and Friday afternoons and will include bowling, elementary gymnasium work, and indoor games, such as basket ball, indoor baseball and volley ball. Saturday afternoons they will go on outings accompanied by Mr. Robert Goodman, assistant secretary. About twenty boys have already taken up the work and more are becoming interested.

Among the passengers arriving by the Royal Mail steamship *Tagus* at Cristobal on November 10 was Ven. Archdeacon Bryan who has been sent to the Isthmus in the interests of the Protestant Episcopal church. Archdeacon Bryan will have charge of the work of the Church in the Canal Zone, the Republic of Panama and the United States of Colombia. He will live at the Hotel Tivoli until other arrangements are made, and will be resident chaplain at Ancon Hospital, where he will hold service at the Protestant chapel every Sunday.

CANAL WORK FOR OCTOBER.

Monthly Report of the Chairman to the Secretary of War.

November 16, 1907.

The Honorable
The Secretary of War,
Washington, D. C

SIR: I have the honor to submit the following report of operations on the Isthmus for the month of October, 1907:

DEPARTMENT OF CONSTRUCTION AND ENGINEERING. CULEBRA DIVISION.

The total amount of material excavated in the Culebra Division during the month was 834,499 cubic yards, as against 753,468 cubic yards during the month of September. Of this amount 827,009 cubic yards were removed by steam shovels and 7,490 cubic yards were quarried at Bas Obispo for use with the rock crusher; 7,608 were removed from the Obispo diversion, and all the remainder was removed from the Canal prism proper. In addition, 2,284 cubic yards were removed in grading at Pedro Miguel yard, which is not included in the above total.

For comparison with the work done during the corresponding month of the previous year, the following table has been prepared:

Period.	Total amount of material excavated by steam shovels.	Classification of material		Av. No. of steam shovels working during month.	Wk'g days in m'th	Av. amount excavated per steam shovel per month	Rainfall during month.
		Rock.	Earth.				
	cu. yds.	*pct.*	*pct.*			*cu. yds.*	*In.*
1906 Oct.	325,835	66	34	22.67	27	14,373	6.22
1907 Oct.	827,009	68	32	37.63	27	21,977	17.1

From this table it will be noted that the total amount of material excavated in the Culebra Division during the month of October, 1907, was about two and one-half times the amount removed in October, 1906, and that the average output per shovel was about 53 per cent greater. The proportion of rock to earth was about the same in October, 1907, as in October, 1906.

The rainfall during the month of October, 1907, was nearly three times as great as in October, 1906.

The number of feet of holes drilled during the month was as follows:

By steam and air drills	65,212
By well drills	39,726
By hand drills	20,511
Total	125,449 lin. ft., or 23.8 mi.

For blasting operations during October 111 tons of explosives were used.

The rock channeler at Bas Obispo channeled 21,890 square feet during the month.

The output of the rock crusher at the same place was 16,646 cubic yards.

During the month 11.9 miles of new track were laid, and 4 miles of old track removed.

The daily average number of laborers at work was 7,840, an increase of 1,061 over the preceding month.

On October 4 the Cucaracha slide, which has caused more or less inconvenience since work was commenced in that vicinity by the French in 1884, began to move toward the east edge of the Canal. The motion at first was quite rapid, being at the rate of 14 feet in 24 hours, but by the close of the month its rate of motion had decreased to 4 feet in 24 hours. About 113,000 cubic yards of material, in all, moved into an area which had previously been excavated, and for a time all passage of material through the bottom of the Canal was shut off. Electric arc lights were installed at the slide, and a four-inch stream of water at high pressure was brought to the aid of the steam shovels which were working on that portion of the slide within the Canal prism. Work was continued day and night under disadvantageous circumstances, due to the very heavy rainfall of the month. By the end of October more material was being removed than was coming into the Canal from the slide, and sufficient space was gained to enable two tracks to be put through the Canal, one of which is utilized for the movement of excavated material to the south.

In submitting an estimate, on April 1, 1907, of the amount of material yet remaining to be excavated before the completion of the Canal, an allowance of 500,000 cubic yards was included to cover all influx of material from the Cucaracha slide. This estimate appears ample, and it is not believed that it will be necessary to remove more than two-thirds of the amount mentioned.

Excavation on the site of the Pedro Miguel lock and dam was continued during the month.

The usual amount of work was accomplished by the Water Service Department, on the dumps, and the engineering parties, the latter being largely engaged, as usual, in taking cross-section measurements of steam shovel work for use in computing the monthly amount of excavation.

CHAGRES DIVISION.

Work in the Chagres Division continued during the month, 16,204 cubic yards of earth were excavated from the San Pablo side, and 9,423 cubic yards from the Caimito side, as against 21,546 cubic yards for the entire division during the month of September.

One steam shovel was added on October 21, at San Pablo, making a through cut for a running track. Upon the completion of this work, the shovel was placed against the rock hill at the south end of Mile 25. Loading at this location was commenced October 31.

During the month, 1,725 feet of drilling was accomplished.

Blasting upon the rock hill at San Pablo was commenced during the latter part of the month.

A total of 4,617 feet of track was laid at San Pablo and Caimito.

Boring operations, to determine just what portions of the division may be excavated by dredging, were commenced early in the month, the territory between Gamboa and Tabernilla having been covered by the end of the month. Practically all of the cross-section work between Gatun and San Pablo was completed.

A study is being made in order to develop more dumping ground at Caimjto, and with a view to operating additional plant south of Gorgona.

A study and estimate for changing the Canal axis at Buena Vista were drawn up and submitted.

At Caimito peninsula opposite San Pablo, 55½ acres of land were cleared. A second gang cleared a trocha 200 feet wide along the Canal axis from Gamboa to Caimito.

The total average force employed daily on this division was 585 men.

The rainfall for the month at San Pablo was 18.94 inches.

COLON DREDGING DIVISION.

Work in this division was prosecuted during the month by four dreoges, three of which worked in the Canal prism and the fourth outside of the prism. The amount of material removed by each of these dredges were as follows:

Dredges.	Material.	Amount. Place measurement
1 five-yard dipper dredge *Chagres*	Soft	16,650 cu. yds.
1 old French ladder dredge	Soft	133,064 cu. yds.
1 sixteen-inch suction dredge	Soft	3,000 cu. yds.
1 sea-going suction dredge *Ancon*	Soft	273,568 cu. yds.
Total		426,282 cu. yds.

The sea-going suction dredge *Ancon* and the old French ladder dredge operated in Limon bay. The 16-inch suction dredge continued work in the prism of the Canal near Mindi until October 10, during the remainder of the month in the neighborhood of the Dry Dock. The dipper dredge operated in the Chagres river on the site of Gatun dam.

Work was continued at the Mindi Hills by two steam shovels, the excavation amounting to 41,078 cubic yards. The output of the shovels was hampered on account of delays from various causes.

GATUN LOCKS.

Borings at the lock site continued during the month; a total of 1,319 feet being drilled.

Five shovels were operated, accomplishing an output of 136,777 cubic yards.

At Porto Bello, 1,000 cubic yards were excavated for the dam, a suitable foundation for which has been uncovered for about 75 per cent of the length of the dam; the remaining portion, lying in the immediate bed of the stream, is yet to be excavated. The depth to rock is uncertain, although one hole reached it at 19 feet below the bed of the stream.

Borings for sand and gravel, for concrete, indicate about 2,600 cubic yards available at the mouths of the creeks El Medio and El Aji.

In the office, studies were made of forms for the Gatun locks, for handling material in connection with the Porto Bello dam, and drawings and specifications for the Gatun cableways and cable railways.

GATUN DAM AND SPILLWAY.

Two steam shovels worked throughout the month, removing 40,238 cubic yards of material. Considerable delay was caused by heavy rains and sliding dumps.

During the month 109 piles were driven on the upper trestle and 56 piles on the lower trestle.

The work of assembling the pipe line section dredge progressed satisfactorily during the month.

The rainfall for the month was 19.27 inches.

LA BOCA DIVISION.

French dredge No. A-2 operated during the month in the new channel, about three miles beyond the wharf, removing 143,222 cubic yards from the Canal prism.

French dredge No. 14 operated in the new channel about two miles beyond the wharf, removing 143,885 cubic yards from the Canal prism.

The 5-yard dipper dredge was laid up for repairs from October 21 to October 27, inclusive; outside of this period, this dredge operated in the new channel, a half mile beyond the wharf, removing 70,015 cubic yards.

LOCKS AND DAMS.

A total of 2,916 lineal feet of holes were drilled at the lock site, and 15,000 pounds of dynamite were used, a large amount of material having been blasted and broken up ahead of the steam shovel.

One shovel worked throughout the month, excavating 7,108 cubic yards of rock. About 2,000 feet of additional track was laid during the month, which enabled the shovel to begin work on the 30-foot level.

A total of 865 feet of trestle was driven on the lock site, 121 feet on the east side and 744 feet on the west side. The trestle on the west side has been used by the Culebra Division as a dump.

During the month 1,938 lineal feet of holes were drilled between Miraflores and La Boca.

Eight test pits were begun, five of which were completed, with an aggregate depth of 94 feet. The material encountered varied from soft mud, sand and gravel, to rock.

At the Sosa-Corozal dam site, lines were run for projected dam axis from San Juan to the foothills of Diablo, and the clearing has been started preparatory to drilling.

The party at work on the flooded area surveys traversed 53,400 feet of line in the vicinity of the spillway; 54,500 feet at the mouth of the Rio Grande river; 58,700 feet opposite Miraflores and Pedro Miguel; 41,000 feet in the valley of of the Cardenas river, and 139,600 feet in the Cocoli valley, reaching the assumed flood line of 75 feet; the party also traversed 101,600 lineal feet in the gap above and opposite Corozal.

A trail opposite the mouth of the Pedro Miguel river was cleared a distance of 12,800 feet. Notes of the territory above Miraflores were carried to plus 90 or above.

The usual routine office work was performed, including the compilation of a new map of the center line from Miraflores to La Boca, and work on all general and division sheets. A map was started covering as much of the territory adjacent to the Canal as would include all areas to be flooded by the proposed dams throughout the entire length of the Canal, on a scale of 1-40,000. Another map was projected to include the drainage area contributory to the Canal basin, on a scale of 1-100,000.

The rainfall for the month was 10.18 inches.

RELOCATION OF PANAMA RAILROAD.

At the close of the month, connection tracks which were started during the month of June had progressed as follows:

1 Pedro Miguel	completed
2 Gatun	95 per cent completed
3 Gatun	completed
5 Lion Hill	90 per cent completed
5 Gamboa	completed
6 Miraflores	completed
7 San Pablo	completed
8 La Boca junction	completed
9 La Boca junction	completed
10 Bueno Vista	20 per cent completed
11 Tiger Hill	90 per cent completed

Grading—During the month 31,845 cubic yards of material were excavated, and 97,635 cubic yards were placed in embankment.

Trestles for filling—The fourth trestle, 1½ miles south of Mindi junction, was completed. Two trestles remain to be driven between Mindi and the office building at Gatun, aggregating 550 feet in length.

A trestle 320 feet long was driven at an elevation of plus-35, from south end of spur No. 2, to connect with the fill across Gatuncillo bottom.

A trestle 178 feet long was added to the south end of embankment at Pedro Miguel.

The trestle across Ciamatillo river bottom was completed.

The trestle at the south end of spur No. 6 was completed to the junction with the main line, and 600 feet of trestle were driven southerly along the main line at an elevation of plus-38

Bridges and culverts—Piles were driven for the foundations of piers 1, 2 and 3, bridge No. 300.

During the month 4,838 cubic yards of concrete were placed in small culverts between Mindi and Tiger Hill and Pedro Miguel and Panama, and 618 cubic yards of concrete were placed in the 10 by 10 foot arch culvert at Gatun.

Track—In the month of October 3,538 feet of permanent track was laid, making a total of 18,977 feet to date.

The force of laborers during the month averaged 900 men.

DIVISION OF MUNICIPAL ENGINEERING.

Panama—A field party continued the topographical survey of Ancon Hill and the detailed survey in the vicinity of the Administration Building and East La Boca. The topographical survey of Corozal was completed. A party was engaged on the Pedro Miguel watershed survey.

Paving was completed around the National Theatre and the laying of concrete sidewalks was commenced.

The road to Hotel Tivoli was resurfaced.

Foundations were placed for a tank at La Boca electric light plant. A 6-inch water main was extended to the Administration Building and the Ancon pumping station and filter plant was operated.

Line work—Additional sewer work was performed at Pedro Miguel and Miraflores.

At Rio Grande the work of increasing the capacity of the reservoir was practically completed at the end of the month. The crusher produced 4,634 cubic yards of crushed stone. Surveys were made in connection with change of location of the Cucaracha pump house.

The usual maintenance work was performed at various points and the pumping plants and condensers were operated.

About 5,300 feet of pipe was laid at Bas Obispo, 5,000 feet at San Pablo and 2,000 feet at Gatun.

Colon and vicinity—The boiler and smokestack were installed at the sump, and 376 feet of 6-inch sewer pipe was laid. About 1,800 feet of small water pipe was laid to supply public stables. Sheet piling was driven on each side of "D" street ditch for a distance of 440 feet, and 600 feet was capped and braced.

At Mount Hope the fuel oil line was completed and the pumping station was operated.

The regular force was engaged in maintenance of reservoir.

About 1,850 cubic yards of crushed stone were used for resurfacing the roads in Cristobal.

DIVISION OF METEOROLOGY AND RIVER HYDRAULICS.

The usual observations and measurements were made during the month.

The mean temperature for the month was normal, but there was an increase in the humidity and cloudiness over September, with a decided diminution of wind movement.

The most striking feature of the climatological record for the month was the marked increase in rainfall over the entire Isthmus, not only over the corresponding month of 1906, but as compared with the average precipitation for October since the establishment of the stations. Tabernilla recorded 26.46 inches the third largest rainfall of record on the Isthmus.

The total evaporation at Bas Obispo during the month was 2.94 inches, a decrease of .42 inches as compared with September.

Self-registering gauges were installed at San Pablo and Tabernilla.

MECHANICAL DIVISION.

The principal features of the work in this division during the month of October were as follows:

Installation of machinery in new shops at Empire and Paraiso.

Completion of pile driver No 16 and work on three others.

Work on the construction of five track shifters.

Initial repairs to eight old French locomotives.

Completion of work of erecting one spreader and three unloaders, and the partial erection of four spreaders, two unloaders and two 15-ton steam shovels.

Erection of two new motor cars at Empire.

Practical completion of 400,000 gallon tank at Gatun.

Installation of three electric cranes at Empire shops, and boiler plants at Paraiso, Empire, Rio Grande and Gorgona.

Operation of the foundry at Gorgona, which yielded an output of 367,270 pounds of brass and iron.

Electrical work at Cucaracha slide; setting of poles for Paraiso pole line; wiring and miscellaneous line work at La Boca, East La Boca, Ancon, Rio Grande, Culebra, Lirio, Empire, Las Cascadas, Gorgona, Gatun, Mount Hope and Cristobal.

Repairs to locomotives, cars, steam shovels, unloaders, spreaders, track shifters, cranes, pile drivers, and other equipment.

Miscellaneous new and repair work for other divisions and departments.

Usual work in connection with the operation, maintenance and repair of shop, electric light, and air compressor plants; also work on shop yards and grounds.

DIVISION OF BUILDING CONSTRUCTION.

During the month 88 new buildings were constructed.

During the month repairs were made to 254 buildings and 21 old buildings were demolished.

DEPARTMENT OF LABOR, QUARTERS AND SUBSISTENCE.

At the close of the month, the effective force of the Commission was 25,915 men, and of the Panama railroad 6,139—a total of 32,054 men. This is the largest force ever worked on the Isthmus since the inception of the Canal work under the French. On April 25, 1907, there were 25,317 men at work for the Commission, and 5,249 working for the Panama railroad, which was the largest number of employes up to that date; from that time the force steadily diminished to 22,000 men in July, when it commenced to rise again.

The movement of labor during the month was small. Fewer Europeans were brought in than at any time since operations were commenced. The independent immigration was not large. There was a small movement of Spaniards from Cuba. A total of 750 new laborers arrived, of which number only 164 were Europeans.

There was a comparatively large increase in the skilled labor force, the larger part consisting of employments or re-employments on the Isthmus. The number of employes recruited in the United States showed a decrease.

Quarters—Few new buildings were authorized during the month. At the close of the month there were 580 applicants for married quarters as against 539 at the end of the month preceding, 131 new applications were submitted during the month. The demand for married quarters is most urgent at Empire and Cristobal, at which points 241 applications are on file. There was a congestion of bachelor quarters at Paraiso and La Boca.

The financial results of the subsistence operations were satisfactory, and no change was made in food or service. The receipts at the hotels and Hotel Tivoli, also European messes, were larger than ever before, while the kitchens remained practically stationary. No native beef was purchased for the first time in many months.

The operations for the first four months of the present fiscal year showed a net profit of $5,817.05, excluding the Washington hotel.

DEPARTMENT OF CIVIL ADMINISTRATION.

General—Correspondence between the Foreign Office of the Republic of Panama and the Head of the Department of Civil Administration during the month of October, in addition to the usual routine matters, included negotiations respecting the following subjects:

1. The collection of taxes on property situated in the Canal Zone just outside of the limits of the city of Panama by officials of the Republic of Panama.
2. The customs duty collected by the Republic of Panama on importations of fresh meats.
3. The jurisdiction of the Zone Fire Department in the city of Panama at fires in buildings belonging to the United States Government or the Panama Railroad Company.
4. The exchange and destruction of mutilated stamps purchased from the Panama Government and surcharged "Canal Zone."
5. The assistance of a representative of the Republic of Panama at the quarterly reading of the water meters in the city of Panama.
6. The ratification by Panama of amendments by the Commission to the rules and regulations governing the sanitary installation of water and sewers in the cities of Panama and Colon.
7. Contract with the Republic of Panama for the cleaning of the streets in the city of Panama.
8. The method of sprinkling the streets in the city of Panama.
9. The preparation of maps of the boundary survey of the Canal Zone.
10. The delay in furnishing clearance papers to the colliers of the Earn Line at Colon.
11. Change in the method of handling personal importations of employes of the Commission.
12. Importation of wine free of duty by the Commissary Department for use at the European messes maintained by the Commission.
13. The repair of the part of the Sabanas road within the limits of the city of Panama.
14. The desire of the General Manager of the Panama Railroad Company that the inspectors of that company be clothed with police powers in the cities of Panama and Colon.

Five persons of undesirable character were deported from the Isthmus during October, three being ex-convicts.

No pardons were granted during the month.

Five charity patients were admitted to the hospitals of the Commission as a charge against Zone funds.

In order to keep the Rio Grande and Camacho watersheds free from human habitation, the Chief of Police was directed to maintain a monthly inspection of the watersheds, reporting the results each month to the Head of the Department of Civil Administration. Plans are under consideration for maintaining a continued patrol of the watersheds in order to eliminate any possible chance of pollution of the water supply.

Courts—The Supreme Court was in session once during the month. One criminal case was tried, but decision had not been rendered at the close of the month. In the Circuit Courts, 6 civil and 29 criminal cases were settled, and in the District Courts 45 civil and 370 criminal cases were disposed of.

Revenues Department—The sales of postage for the month aggregated $6,904.25; money order sales amounted to $351,957.13, an increase of $19,669.18 over the sales in September. The sales during the month of October exceeded the sales of any previous month since the inauguration of the money order system in the Canal Zone, by more than $4,000.

The usual business was transacted in connection with the postal service, land collections, customs, internal revenues and administration of estates.

The collections of the District Tax Collectors aggregated $5,707.51. The fines and costs turned in by District Judges amounted to $2,654.70.

Three estates were filed for settlement with the Administrator of Estates during the month. One estate was settled and there were in the hands of the Administrator, on October 31st, 15 unsettled estates.

Police Department—During October 429 arrests were made by the Zone Police Department, as compared with 537 during September, a decrease of more than 20 per cent.

Eight policemen were enlisted during the month and ten discharged. The force, on October 31, consisted of 198 officers and men.

As Marshal of the Supreme and Circuit Courts, the Chief of Police reported the service of 53 subpoenas, 72 summonses, and one execution. The Circuit Courts were opened and closed 13 times during the month.

The report of the Warden of the Zone Penitentiary showed that four convicts began sentences during the month and six were released from confinement by reason of the expiration of their sentences. At the end of the month there were 82 prisoners remaining in confinement in the penitentiary.

The cost of subsisting, clothing and guarding convicts in the penitentiary, for the month of October, was $1,785.40, and the value of the work performed by the convicts for the Department of Construction and Engineering was $1,070.30.

The Coroner reported 16 deaths during the month requiring his action; eight of the deaths resulted from drowning and five from railroad accidents.

DIVISION OF PUBLIC WORKS.

On October 31 there were 1,123 water connections in use in the city of Panama, 162 in Colon, and 53 private connections in the Zone, as compared with 1,092, 140 and 50, respectively, on September 30. A number of permits were issued by the Chief Plumbing Inspector for installation in the cities of Panama and Colon.

The collections in Panama on account of water rents for the quarter ended September 30, amounted, during the month of October, to $12,805.45, gold, and there were at the close of the discount period, October 15, 74 bills, of a gross amount of $880.35, outstanding.

In Colon, $2,999.25 was collected on account of water rents, and 17 bills, of a gross amount of $498.15, were outstanding at the end of the discount period.

The average daily consumption of water in the city of Panama during the month was 755,2[illegible]0 gallons, as compared with 731,300 gallons in September. In Colon, the average daily consumption was 426,695 gallons, as against 497,808 gallons in September.

The plumbing inspection work, maintained for the purpose of detecting leaks and waste of water, was continued during the month, the entire Zone from La Boca to Cristobal, being now covered.

The Superintendent of Public Works reported the killing of 146 head of cattle and 54 hogs at the Empire slaughter house, and 65 head of cattle and 36 hogs at the Gorgona slaughter house. During the month 12 stalls and 13 tables were vacant at the Empire market.

The monthly revenue from the rental of space in the markets was $461.02.

Fire Department—The Chief of the Fire Department reported but one fire during the month, which occasioned no loss.

At the request of the General Manager of the Panama railroad, a volunteer fire department was organized among the employes of the Railroad Company in Panama.

An arrangement was made with the Panama Government, under which that government shall furnish the necessary hose and other apparatus for fire protection at Santo Tomas hospital, thus permitting the release, for use at other points, of the reel, hose, and other appliances that were placed in the hospital by the Zone Fire Department.

On October 27, a test run was made to the Mount Hope storehouse by hose wagon and crew from the Cristobal engine house. The apparatus arrived at the storehouse and had a stream of water playing on the building in seven and one-half minutes after the alarm was sent in. The test was a practical one in every way, as the department had no previous knowledge that the alarm was turned in for the purpose of making a test.

The regular inspection service was maintained by the department, and periodical drills of the organized volunteer fire companies and of employes in buildings and shops were held. There were 1,288 chemical extinguishers in use at the end of the month, and the number of inspections of these extinguishers aggregated 2,576 during the month—an average of two inspections for each extinguisher.

The force of the department was practically as reported for September.

Division of Schools—The Canal Zone Public Schools were opened on October 1. As the schoolhouse at Ancon, for white children, was not completed on that date, temporary quarters were provided in the lower part of a two-family house.

There are at present employed in the white schools 17 American teachers and 1 teacher of Spanish. The Spanish teacher gives instructions at the Culebra white school in the forenoon, and at the Gorgona white school in the afternoon of each school day. The grades taught at each of the white schools are indicated below:

La Boca	First to third inclusive	
Ancon	" " seventh "	
Pedro Miguel	" " fifth "	
Paraiso	" " sixth "	
Culebra	" " eleventh "	No pupils in 7th grade
Empire	" " eighth "	
Las Cascadas	" " fifth "	
Gorgona	" " eighth "	
Gatun	" " seventh "	
Cristobal	" " ninth "	No pupils in 8th grade.

There are at present five pupils in the schools requiring instruction in high-school grades, and it is anticipated that there will be an increase in this number as soon as facilities for instruction in the advanced grades are provided. Requisition for the necessary books and other equipment for advanced work for 18 pupils has been placed. The total enrollment of the white schools was 351, and the average daily attendance 243, or 69.23 per cent. The poor attendance is to be explained by the fact that some of the schools were not opened on the 1st of October, and a considerable number of the children entered the schools during the latter part of the month.

Colored schools have been opened at the following points:

La Boca, Matachin, Gatun, Las Sabanas, Cruces, Mount Hope, Paraiso, Gorgona, Playa de Flor, Culebra, Tabernilla, Cristobal, Empire and Bohio.

The curriculum of the colored schools includes the first six grades.

The total enrollment in the colored schools was 1,014, and the average daily attendance 637, or 62.82 per cent.

SANITARY DEPARTMENT.

[The full report from this Department was published in THE CANAL RECORD of last week.]

Respectfully,
GEO. W. GOETHALS,
Chairman.

Commission Action.

At a meeting of the Isthmian Canal Commission held on October 28, the following action was taken:

Resolved, That the regulations governing the treatment of persons by the physicians and in hospitals of the Health Department of the Government of the Canal Zone, as adopted at the 124th meeting of the Isthmian Canal Commission, held at Culebra, April 24, 1907, be amended by the addition of the following paragraph:

The officers and men of the United States Marine Corps, stationed for duty on the Canal Zone, shall be treated in all respects upon the same basis as employes of the Isthmian Canal Commission, and the members of their families may be admitted to hospitals and treated at dispensaries on the same basis as members of families of employes of the Isthmian Canal Commission.

The following rates shall be collected for the use of water drawn from the public mains in the Canal Zone through private connections:

		PER MONTH
Dwelling houses	For any number of persons not exceeding 7, one faucet	$1.50
	For each additional 7, or smaller number	.75
Cantines or restaurants	One faucet	$3.00
Bars	One faucet	$4 50
Smaller hotels and boarding houses	With not more than 10 rooms, two faucets	$4.50
	For each room in addition to 10	.45
Bakeries	With average consumption of not more than two barrels of flour per day, one faucet	$1.50
	For average consumption of each additional barrel of flour per day	.45
Saloons for sale of ice cream and non-intoxicating beverages, barber shops, drug stores, stores (general), blacksmith shops	One faucet	$1.50
	For each faucet or fixture in addition to those provided for above	$1.50

The above flat rates are subject to a discount of 33⅓ per cent if paid within fifteen days from date of bill.

Bottling establishments, large hotels, laundries, large markets, stables, truck gardens	By meter.

When it shall be deemed proper or necessary to put in a meter in accordance with section 5 of these regulations, the following rate will be charged for Cristobal, Gorgona and Empire, provided that water furnished the Panama Railroad Company shall be charged for as provided in the special contract between the railroad company and the Isthmian Canal Commission.

Panama Railroad Company.

Notice.

Passengers may have their baggage checked in either direction, between Pier 57 (new), foot of West 27 Street, North River, New York; Pier No. 11, Cristobal, and any local station on the Panama railroad, on the presentation of proper transportation and the payment of regular baggage tariff, excess charges and additional expense of a transfer charge of 50 cents gold, for trunks and 25 cents gold for smaller articles.

Passengers from New York must first have their baggage examined and passed by Customs Officer at Cristobal, on arrival of steamship, after which it may be rechecked at baggage room, Pier No. 11, to any local station.

Passengers for New York holding orders on ticket agent at Colon, may check their baggage to Pier No. 11, Cristobal, where they will be required to claim it at baggage room and after securing tickets, same may be rechecked to New York.

All baggage for staterooms on steamships may be checked to Pier No. 11, Cristobal, where it must be claimed. Steamship stewards will then assist in placing such baggage in staterooms.

HIRAM J. SLIFER,
General Manager.

Colon, R. P., Nov. 1.

Baseball News.

The Isthmian Baseball League elected the following officers on November 17: Col. Geo. W. Goethals, U. S. A., president; Dr. John H. Purnell, vice president, and Mr. Robert Coe, secretary-treasurer. It was decided that each of the teams represented in the League should be financed by an athletic association, the president of each association to have voting power in League matters. Each association assumes the right of franchise for the team represented, and has the power to transfer such franchise at any time, thus assuring a permanent organization. One new team was admitted, representing the Division of Motive Power and Machinery, making the number of teams in the League seven. A meeting will be held in the office of the president on Wednesday evening, November 20, to adopt the schedule. The season will open about December 15.

An exhibition baseball game was played on Empire field on Sunday, November 17, between the Empire and Culebra clubs, resulting in a score of 10 to 9 in favor of Culebra. The game was merely a "try-out" of new men, and although very loosely played, demonstrated that there was no lack of good material for the coming season.

Civil Service Examination.

A competitive examination under the rules of the U. S. Civil Service Commission for the positions of clerk, stenographer, and bookkeeper, in the service of the Isthmian Canal Commission, will be held on Sunday, December 15. The exact hour and place of examination will be announced later.

Application for this examination must be made on the prescribed blank form, which, with necessary instructions, may be obtained from the undersigned.

Applications will not be accepted unless received before 4.30 o'clock p. m. on December 12.

All persons wishing to take this examination should secure blanks and fill them out at once, in order to allow time for any necessary corrections.

JOHN K. BAXTER,
Secretary Civil Service Board,
P. O. address, Sta. A., Ancon, C. Z.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Sojourners' Clubs.

THE CANAL RECORD:

Kindly insert the following for the benefit of all Masons:

The Culebra Sojourners' Club will hold their next stated meeting Friday, November 22, at 7.30 p. m. In behalf of the club, its officers thank the Empire delegation for their recent visit. All Master Masons from adjoining towns are cordially invited to our meetings.

GEORGE W. STRONG,
Secretary,

Culebra, C. Z., Nov. 8.

THE CANAL RECORD:

Sojourners' Lodge No. 874, A. F. and A. M. will meet at its hall in Colon on Saturday, November 23, 1907, at 7.30 p. m. in Extraordinary Communication to work in second and third degrees. Masons in good standing are fraternally invited to be present.

Colon, Nov. 18. ELI D. SIMS,
Acting Secretary.

Snowballing on the Isthmus.

THE CANAL RECORD:

It was hard to believe but on Wednesday, November 13, in front of the Commission club house in Cristobal, a group of small boys—and larger ones—were actually throwing snowballs at the astonished natives who were unfortunate enough to pass that way. It seems that several tons of frost and snow had been removed from the cooling pipes in the cold storage plant and of course the boys found it. One husky American shopman, after running the gauntlet, said "that it was almost as good as a winter vacation in the States" to be swatted on the ear with a real snowball and to feel half a handful of oozy snow sliding down the inside of your collar.

W. J. STICKEL.

Cristobal, C. Z., Nov. 16.

Pocketknife Found.

THE CANAL RECORD:

Found in Panama, November 10, a pocketknife bearing inscription "From T. & L. to Andrew Atchison." Loser may recover same by proving ownership to R. Haefeke, care of Department Lock and Dam Construction, Culebra, C. Z.

RUD. HAEFCKE.

Culebra, Nov. 11.

Card of Thanks.

THE CANAL RECORD:

The interment of Robert Higginson, who died in Ancon Hospital on November 2, took place at Ancon cemetery on November 10. The Rev E. O. Eskins, of Panama, conducted the service. I desire through your columns on behalf of his family to thank all who attended the funeral for sympathy shown in this sad bereavement.

A. VEITCH.

Gorgona, C. Z., Nov. 11.

Dance at Pedro Miguel.

THE CANAL RECORD:

The Pedro Miguel club will give a dance in its club rooms, Thursday evening, November 21. A special train will run from Paraiso to Corozal.

GERALD D. BLISS,
Secretary.

COMMISSARY DEPARTMENT.

NOTICE.

Thursday, November 28, being Thanksgiving, and a public holiday, all commissaries will be closed.

Ice, cold storage, and bread will be delivered as usual.

Cold-storage orders for shipment on November 29 must be received at the Cristobal office NOT LATER THAN the MORNING of the 27th instant.

JOHN BURKE,
Manager.

COMMISSARY PRICES

For week ending November 14:

		Price. CTS.
FRESH MEATS.		
Beef, sirloin, roast	*per lb...*	**22*
Beef, rump, roast	*do*	**18*
Beef, Porterhouse	*do*	*25*
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	**16*
Beef, rib-roast, second-cut	*do*	**14*
Beef, chuck-roast	*do*	**11*
Beef, soup	*do*	**6*
Beef, stew	*do*	**8*
Beef, corned	*do*	*10, 12, 14*
Beef, corned, sirloin butts, all lean	*do*	*16*
Beef, corned, fancy boneless brisket	*do*	*18*
Steaks, sirloin	*do*	**22*
Steaks, Porterhouse	*do*	*25*
Steaks, rump	*do*	**18*
Steaks, tenderloin	*do*	**20*
Steaks, round	*do*	*12½*
Veal, cutlets	*do*	**21*
Veal, short-cut chops	*do*	**20*
Veal, loin	*do*	**13*
Veal, entire forequarters	*do*	**19*
Veal, for stewing	*do*	**9*
Mutton, entire forequarters,	*do*	**9*
Mutton, short-cut chops	*do*	**18*
Mutton, leg	*do*	**14*
Lamb, for stewing	*do*	**10*
Lamb, entire forequarters	*do*	**10*
Lamb, short-cut chops	*per lb...*	**22*
Lamb, legs	*do*	**18*
Pork, cuts	*do*	*20*
Livers, beef	*per lb...*	*9*
Sausage, pork	*per lb...*	*16*
Sausage, Frankfurt	*per lb...*	*16*
Tripe, pickled, Honeycomb	*do*	*12*
Oysters, ½-gallon kegs	*each...*	*70*
Pickled pig's feet	*per lb...*	*6*
Tongue beef	*do*	*13*
Tongue pig	*do*	*12*
Sausage, Bologna	*do*	*15*
Sausage, Lieberwurst	*do*	*15*
POULTRY AND GAME.		
Chickens, dressed (milk-fed).	*each...*	**$1.00*
Fowls	*do*	*75*
Turkeys	*per lb...*	**25*
Broilers, frys (chicken)	*each...*	**55*
Squabs	*do*	**30*
Ducklings	*do*	**85*
Eggs, fresh	*per dozen*	*†36*
Geese (about 10-lb)	*each*	*$2.00*
CURED MEATS AND LARD.		
Bacon, strips per lb	*per lb...*	*23*
Bacon, English breakfast, slic'd	*do*	*§26*
Ham, sugar-cured, sliced	*do*	*§25*
Ham, one-half (for boiling)	*do*	*§20*
Ham, Yorkshire (imported).	*do*	*25*
Hams, Westphalia	*do*	*45*
DAIRY PRODUCTS.		
Butter, prints, prime quality.	*per lb...*	**38*
Cheese, Camenbert	*each*	*28*
Cheese, Phila		*22*
Cheese, Neufchatel	*do*	*6*
Cheese, Roquefort.	*per lb.*	*45*
Cheese, Young America	*do*	*22*
Cheese, Swiss	*per lb...*	*30*
Cheese, Gouda	*do*	*30*
Cheese, Edam	*each...*	*90*
Milk, fresh	*per quart*	***15*
FRUITS AND VEGETABLES.		
Apples	*per lb...*	**4½*
Bananas	*per dozen*	*5*
Pears	*per lb..*	*†12*
Cranberries	*per lb*	*12*
Onions, young	*do*	*12*
Apples, fancy table	*per lb..*	*†9*
Squash, Hubbard	*do*	*5*
Celery	*bunch*	*18*
Cucumbers	*per lb...*	*†14*
White potatoes	*do*	*2½*
Cabbage	*do*	**1½*
Turnips	*do*	*3*
Lettuce	*do*	*†20*
Onions	*do*	*2*
Cauliflowers	*do*	*†8*
Yams	*do*	*2½*
Sweet Potatoes, American	*do*	*2*
Egg Plants	*each*	*†12*
Radishes	*do*	*†10*

** Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries.

NOTICE OF PRICE CHANGES.

	Old Price. CTS.	*New Price.* CTS.
Shoes, ladies', patent blu., Oxf., plain toe, No. 1086, stock No. 37,345, per pair	*$2 35*	*$2 20*
Shoes, ladies', patent Christie ties, No 587, stock No. 37,346, per pair	*$2 20*	*$2.05*
Shoes, men's, white, blu., Oxf., stock No. 37,432, per pair	*$1.35*	*$1.25*

NEW ARTICLES.

		Price CTS.
Tweed suitings, 28-9-inch, m81,754, stock No 37,738.	*do*	*$1 25*
Shoes, misses', gun metal blu. No. 389, stock No. 37,717	*per pair*	*$2.00*
Shoes, men's, patent Colt, blu., Oxf., Potay, stock No. 37,718	*do*	*$3.75*
Shoes, men's, gun metal, blu., Oxf, Potay, stock No. 37,719	*do*	*$3.45*
Shoes, men's, gun metal, blu, Oxf., Tr. Pt., stock No. 37,721	*do*	*$3.45*
Shoes, men's, willow calf, blu. Oxf., Potay, stock No. 37,722	*do*	*$3.45*
Shoes, men's, Cadet calf, blu., No. 612, stock No. 37,756	*do*	*$3.55*
Shoes, men's, vici blu., No. 513, stock No. 37,757	*do*	*$3.15*
Shoes, men's, patent Colt, blu., Nos. 542, 536, 506, stock No. 37,758	*do*	*$3.15*
Shoes, men's, Cadet calf, blu., Nos. 536, 521, 510, stock No, 37,763	*do*	*$3.15*
Shoes, men's, patent Colt, blu., Oxf., No. 7508, stock No. 37,764	*do*	*$2.65*
Shoes, men's, vici kid, blu., No. 513, stock No 37,766	*do*	*$3.15*
Shoes, ladies', dull kid, Gibson tie, Nos. 7572, 7562, stock No. 37,759	*do*	*$2.25*
Shoes, ladies' Guptills, 4-strap sandals, No. 8226, stock No 37,761	*do*	*$2.05*
Shoes, ladies', patent Colt, Gibson tie, No. 7561, stock No. 37,762	*do*	*$2.20*
Shoes, ladies', patent, Gibson-Ashley tie, No. 8246, stock No. 37,767	*do*	*$2 50*
Shoes, ladies', patent, Gibson tie, No. 7561, stock No. 37,768	*do*	*$2.20*
Shoes, ladies', patent Colt, Ashley, No. 8246, stock No. 37,769	*do*	*$2.50*
Shoes, child's barefoot sandal, No. 7153, stock No. 37,765	*do*	*$1.00*
Shoes, men's, white, waterproof, blu., Oxf., Potay, stock No. 37,774	*per pair*	*$3 75*
Shoes, men's, russet calf, tr. pt., blu., Oxf., stock No. 37,775	*do*	*$3.45*
Shoes, men's, tan, poc. calf, Teck blu., stock No. 37,776	*do*	*$3.90*
Shoes, men's, tan elk, Teck blu., stock No. 37,777	*do*	*$6.55*
Shoes, men's, tan, opera slippers, stock No. 37,778	*do*	*$1.40*
Shoes, men's, tan, bals, stock No. 37,779	*do*	*$3.45*
Hats, Belly, as Dakota, stock No. 37,822	*each...*	*$2 50*
Hats, white crush, No. 800, stock No 37,796	*do*	*$1.80*
Hats, Belly, as Wisconsin, stock No 37,821.	*do*	*$2.50*
Vests, pique, 8223 as 4402, stock No 37,798	*do*	*$1.75*
Vests, pique, 8512 as 4120, stock No. 37,799	*do*	*$2.05*
Vests, pique, 8428 as 4053, stock No. 37,811	*do*	*90*
Vests, pique, 8184 as 4040, stock No. 37,812	*do*	*$1.20*
Vests, pique, 8211 as 4070, stock No. 37,813	*do*	*$1.75*
Vests, pique, 8160 as 4121, stock No. 37,814	*do*	*$1.45*
Vests, pique, 8505 as 4058, stock No 37,815	*do*	*$1.20*
Coats, alpaca, 7633 as 1228, stock No. 37,816	*do*	*$2 05*
Coats, alpaca, 7022 as 1197, stock No. 37,817	*do*	*$2.75*
Coats, alpaca, 7027 as 1198, stock No 37,818	*do*	*$2.45*
Coats, alpaca, 7005 as 1203 stock No. 37,819	*do*	*$1 30*
Buckets, water, galvanized, 10-qt., stock No. 37,772	*do*	*20*
Buckets, water, galvanized, 14-qt, stock No. 37,773	*do*	*25*
Stoves, with water backs, six holes, stock No. 37,785	*do*	*$21.35*

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Mr. H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon.

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L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
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J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
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Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

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H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
E. H. Hale, Chief Clerk.
Geo. L. Campen, Water Commissioner, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
Translators: F. H. Sheibley and Charles M. Brown.
M. C. Kerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
J. M. Fernandez, District Judge, La Boca.
R. B. Myers, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

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Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry C. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Ancon; C. C. McColley, Empire; Chas. L. Parker, Gorgona; Edgar Lowe, Cristobal, division superintendent.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Rainfall from November 1 to 16, 1907, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Total.	Maximum in one day.
Atlantic Slope.		
Cristobal	9.49	1.40
Brazos Brook	8.70	2.33
Gatun	8.31	1.74
Bohio	6.39	1.81
Tabernilla	6.88	1.85
San Pabl	7.61	1.85
Central Section.		
Bas Obispo	5.78	1.45
Gamboa	6.58	2.02
Empire	6.14	1.60
Camacho Dam	5.78	1.55
Culebra	4.52	.90
Rio Grande	5.42	.88
Pacific Slope.		
La Boca	4.84	1.23
Ancon	6.64	1.85
Naos	3.39	1.60
Chagres Valley.		
Alhajuela	1.81	.36

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Prinz Sigismund	*H.-A.*	*Saturday*	*Nov.*	*16*
Orinoco	*R.M.*	*Saturday*	*Nov.*	*16*
Dunottar Castle	*P.RR.*	*Monday*	*Nov.*	*18*
Finance	*P.RR.*	*Friday*	*Nov.*	*22*
Altai	*H.-A.*	*Saturday*	*Nov.*	*23*
Colon	*P.RR.*	*Wednesday*	*Nov.*	*27*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*30*
Atrato	*R.M.*	*Saturday*	*Nov.*	*30*
Advance	*P.RR.*	*Monday*	*Dec.*	*2*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*7*
Panama	*P.RR.*	*Monday*	*Dec.*	*9*
Dunottar Castle	*P.RR.*	*Saturday*	*Dec.*	*14*
Prinz Sigismund	*H.-A.*	*Saturday*	*Dec.*	*14*
Trent	*R.M.*	*Saturday*	*Dec.*	*14*
Finance	*P.RR.*	*Thursday*	*Dec.*	*19*
Altai	*H.-A.*	*Saturday*	*Dec.*	*21*
Colon	*P.RR*	*Tuesday*	*Dec.*	*24*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec.*	*28*
La Plata	*R.M.*	*Saturday*	*Dec.*	*28*
Advance	*P.RR.*	*Monday*	*Dec.*	*30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Atrato	*R.M.*	*Wednesday*	*Nov.*	*20*
Venetia	*H.-A.*	*Saturday*	*Nov.*	*23*
Panama	*P.RR.*	*Sunday*	*Nov.*	*24*
Dunottar Castle	*P.RR.*	*Friday*	*Nov.*	*29*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*3*
Finance	*P.RR.*	*Wednesday*	*Dec*	*4*
Trent	*R.M.*	*Wednesday*	*Dec.*	*4*
Altai	*H.-A.*	*Saturday*	*Dec.*	*7*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*10*
Advance	*P.RR*	*Sunday*	*Dec.*	*15*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Dec.*	*17*
La Plata	*R.M.*	*Wednesday*	*Dec.*	*18*
Panama	*P.RR.*	*Saturday*	*Dec.*	*21*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*21*
Dunottar Castle	*P.RR.*	*Thursday*	*Dec.*	*26*
Finance	*P.RR.*	*Tuesday*	*Dec.*	*31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*31*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Orinoco	*R.M.*	*Tuesday*	*Nov.*	*26*
Atrato	*R.M.*	*Tuesday*	*Dec.*	*10*
Trent	*R.M.*	*Tuesday*	*Dec.*	*24*

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 2 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon about December 9 and 21.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Nov. 20, 1907.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Barbour, Jesse
Birnie, Jas.
Bodle, R. W.
Bowers, W. M.
Brooks, Julius
Cooper, Gilbert K.
Cummings, Mrs. Mary
Collins, James
Duzant, Aug. V.
Gillemore, Jno. E.
Griley, Margret
Howard, Geo. E. L.
Hosten, Algernon
Houston, R. S.
Hoyle, Henry Miller
Kelly, B. H.
Long, Chas. G.
Lewis, F. J.
Mayner, J.
MacPherson, Dr. W. E.
Perkins, L. N
Pfeifer, Ferdinand
Rice, Willard D.
Stellenkamp, Jas. A., or Slettinkamp, Jas. A.
Shortt, Mrs. Nettie
Tull, Richard E
White, Mrs. and Mr. M.
Whitman, Walter E.
Wescott, Fred.

The steamship *Eskdale* with a cargo of 43,000 cypress cross ties for the Isthmian Canal Commission, arrived at Cristobal November 15.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, NOVEMBER 27, 1907. No. 13.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

Cost of Living on the Isthmus.

There will be found on page 103 of this issue of THE CANAL RECORD a comparison of the prices charged at the Commissary for food supplies on October 11, with those charged for the same articles in the retail markets at New York on the same date. An examination of the list shows that in 19 instances the prices charged at the Commissary were slightly higher than those charged in New York, that in 37 instances they were lower, and that in 8 instances they were equal. The aggregate of higher prices in the 19 instances was about 90 cents, and the aggregate of lower prices in the 37 instances was about $2.40, showing a net advantage of $1.50 on 64 items, or an average of about 2⅓ cents an item in favor of the purchaser on the Isthmus over the one in the United States.

Progress on New Panama Railroad.

Work on the new location of the Panama railroad is advancing steadily. The new location leaves the old line near Mindi, and the grading between that point and Gatun is practically finished.

One of the largest railroad embankments in the world, and probably the largest in point of average height to length, is located at Gatun on the new line of the Panama railroad. It crosses the valley of the Gatuncillo river at an average height of about eighty-two feet, is 1¼ miles long, and contains over 2,600,000 cubic yards of material. Owing to the great height and length of this fill it will be necessary to build it in three sections. A trestle, thirty feet high and running the entire length of the fill, will first be built, from which material will be dumped by the construction trains. When the dirt reaches the top of the trestle another 30-foot trestle will be built on the dump thus formed, and the operation will be repeated until the final grade of the railroad is reached. The fill crosses an arm of the lake that will be formed by the Gatun dam and an opening will be left at the bottom of the fill in case it ever becomes necessary to drain the lake. In order to allow passage for boats a drawbridge of the Bascule type, about 100 feet long, is being considered.

The new bridge over the Chagres river near Gamboa will be 1,320 feet long, consisting of fourteen 80-foot through-girder spans and one 200-foot through-truss span. The contract for the steel work has been let to the Penn Bridge Company and delivery will begin next March. The fifteen spans will rest on fourteen piers and two abutments all of which will be built of concrete on pile foundations. The south abutment and the two south piers are completed and the pile foundation driven for a third pier. It is estimated that the masonry work will be finished about July, 1908.

There will be a tunnel at Miraflores, the first on the Isthmus, about 600 feet long. The north approach to it is practically completed and 75 feet of heading has been driven. The south approach is also completed and the heading has been started. It will be a single track tunnel and will be lined its entire length with concrete.

Late Mailing in New York.

The postmaster of New York has added another and valuable facility to the new arrangements which he has made in regard to the quick transmission of mails to and from the Isthmus. A post office clerk has been detailed for duty at the Panama steamship pier at the foot of West 27th street, New York. He will be there an hour and a half before the advertised sailing time of the ships and will receive mail up to ten minutes before the ship sails. No extra charge will be made on mail matter posted at the pier. Taken in connection with the establishment of sea post offices on the steamships this new arrangement should be of great service in securing for people on the Isthmus prompt delivery of all mail matter from the States.

Rock Crushing Plant at Porto Bello.

Delivery of the rock crushing plant at Porto Bello, now under contract, is to be made on or before December 21, 1907, and active preparatory work is well under way at Porto Bello, with a view to the installation of this plant, which includes the construction of a reservoir across the mouth of the Quebrado El Mango, in order to provide a suitable supply of fresh water.

It will be necessary to construct wharves at Porto Bello, and make such other preparations as will ensure the delivery of from two to five thousand cubic yards of broken stone per day at Gatun. Three sea-going tugs, and eighteen steel barges will be utilized in transporting this broken stone and sand from Porto Bello and points on the Atlantic coast below Porto Bello to Gatun. Of this fleet, six barges which were purchased from the Panama railroad, and one tug are in commission, and contracts are in preparation for the remainder. It is expected that this plant, and the erecting plant at Gatun will all be in commission and ready for actual lock wall construction on January 1, 1909.

Rip-rap on Colon Water Front.

Rip-rap is being placed on the water front at Colon, from the Quarantine station to the Light-house, for the purpose of preventing the damage frequently caused by the waves, especially during the severe winter storms. Something of this kind was done several years ago, but not in a systematic manner, and it is expected that the present work will be of a sufficient strength to resist permanently the force of the waves.

Increased Isthmian Pay.

During the month of July, August and September, the number of new men, exclusive of unskilled laborers, employed by the Commission was 347. Of these, 317 were given higher pay than they had been receiving in the United States or other previous place of employment, 13 were given the same pay as previously received, and 17 accepted employment at less pay than previously received. The average rate of increase for the entire 347 was 52 per cent. They include clerks, draughtsman, engineers, and mechanics. The largest increase was 183 per cent or nearly three times the amount previously received. This was given to three men—two car repairers and one powderman.

Under a recently issued order, special attention is paid to the work of new men who are employed under the rules of the Commission, on provisional contracts, by labor agents in the United States, and who are given an increase of more than 75 per cent of their previous pay. The Head of the Department to which they are assigned, is required to keep close track of the work and in case the value of their services is not such as to justify the increased pay, the provisional contract is cancelled and the pay is reduced.

Change in Alignment.

A change in the alignment of the Panama railroad between Gorgona and Mamei has recently been made. A dump formed by material from the Canal prism has extended far enough, with the addition of a short trestle across a small stream, to allow tracks to be laid across it on a tangent, which eliminates the sharp curve in the main line (known as the Alligator curve) about one-half mile north of Gorgona station. The change shortens the line only a few hundred feet but it will be a great help in operating trains. A passenger train first passed over the new track on November 21 and it will used as the main line hereafter.

Chicago Drainage Canal Excavation.

The following figures relating to annual and maximum monthly output on the Chicago Drainage Canal, were furnished through the courtesy of Mr. Isham Randolph, Chief Engineer of the Sanitary District of Chicago. These figures are very interesting as a basis for present and future comparison with the output on the Panama Canal.

Table showing the volume and character of material excavated from the Sanitary and Ship Canal of Chicago each year during the construction period.

Year.	*Character of Material*		*Total.*
	GLACIAL DRIFT.	SOLID ROCK.	
1892.....	409,075	119,130	528,205
1893.....	3,262,104	1,577,109	4,839 213
1894.....	9,589,527	3,692,480	13,282,007
1895.....	7,434,999	5,060,666	12,495,665
1896	4,444,336	1,533,989	5,978,325
1897.....	2 029,310	276,289	2,305,599
1898.....	1,493,048	371,865	1,864,913
1899.....	1,612,59	355,408	1,968,003
Total..	30,274,994	12,986,936	43,261,930

Tables showing maximum output per month for the two years.

1894.

Month.	*Cubic yards.*		
	GLACIAL DRIFT	SOLID ROCK	Total.
January.....	397,557	147,400	544,959
February....	223,167	146,595	369,762
March.........	369,861	208,300	578,161
April..........	672,663	256,700	929,363
May............	846,526	246,700	1,093,226
June............	1,060,944	338,265	1,399,209
July	1,113,934	369,882	1,483,816
August........	1,186,968	413,864	1,600,832
September..	992,090	333,091	1,325,181
October	944,641	401,282	1,345,923
November...	738,697	362,205	1,100,902
December....	773,550	443,396	1,186,946
Total.......	9,320,600	3,637,680	12,958,280

1895.

Month.	*Cubic yards.*		
	GLACIAL DRIFT	SOLID ROCK	Total.
January	379,911	376,750	756,661
February....	99,926	328,565	428,491
March	331,918	438,000	769,918
April...........	698,032	565,500	1,263,532
May...........	793,461	551,800	1,345,261
June............	961,174	555,500	1,516,674
July	867,904	525,200	1,393,104
August	935,059	515,200	1,450,259
September ..	797,279	391,967	1,189,246
October	754,843	375,754	1,130,597
November...	543,387	258,030	801,417
December....	270,844	178,400	449,244
Total......	7,433,738	5,060,666	12,494,404

The foregoing table is compiled from monthly reports and totals differ from corrected annual statements:

1894—Annual statement, 9,589,527 glacial drift; 3,692,480 solid rock; total, 13,282,007 cubic yards.

1895—Annual statement, 7,434,999 glacial drift; 5,060,666 solid rock; total, 12,495,665 cubic yards.

It will be noted from the preceding table that the maximum output for any one month during the construction of the Chicago Drainage Canal, was in August, 1894, when 413,864 cubic yards of solid rock and 1,186,968 cubic yards of glacial drift—total, 1,600,832 cubic yards were removed. The highest monthly record so far attained on the Panama Canal was 1,868,729 cubic yards removed in the month of October, 1907, of which about 700,000 cubic yards were classified as rock and the remainder as earth and mud.

Rapid Steam Shovel Work.

Steam shovel No. 222, which was injured in the explosion at 10 a. m. on Friday, November 15, loaded 57 Lidgerwood cars containing an aggregate of 1,140 cubic yards between 7.10 a.m. and 9.53 a.m. of that day, or at the rate during the period mentioned of 419 cubic yards per hour.

Mesaba Range Shovel Record.

The following appears in *Engineering Contracting* of November 6, 1907.

"Three steam shovels together in the iron ore deposits in Mesaba Range, Minnesota, have made a maximum record of 190,000 cubic yards in one month, a rate of 1,220 cubic yards, per shovel, in ten hours. The average performance, however, is about 900 cubic yards per 10-hour day."

This is at the rate of 720 cubic yards per day of eight hours, which is considerably below the average record for steam shovels in the Culebra Division for the past three months, as shown in the table published on this page.

Gatun Shovel Records.

For the week ending November 9, there was loaded by shovels 113 and 114 at the spillway site, Gatun, 10,452 cubic yards, car measurement. The largest day's loading for both shovels was on the 7th, when 2,472 cubic yards was taken out. Shovel 114 made the largest output for any one day in the week, loading 1,452 cubic yards on the 7th.

The maximum daily output for the five shovels working at the Gatun lock site for the week ending November 16, was made on Monday, November 11, the total number of cubic yards, car measurement, being 5,026, an average of 1,011 cubic yards per shovel. For the same period there were 9,708 cubic yards, car measurement, loaded by shovels No. 113 and No. 114 at the spillway. The largest day's loading for both shovels was on the 11th, when 1,968 cubic yards was taken out. Shovel No. 113 loaded 1,008 cubic yards on the 11th, and No. 114, 1,008 cubic yards on the 12th, both tying the maximum loading per shovel during the period. All shovels are of the 70-ton class.

Railway Economics in the States.

All the large railroad and industrial corporations are at present bending their efforts toward the inauguration of the most rigid programs of economy that they have adopted for many years.

About fifty railway systems in the Western and Middle States, many of which operate from Chicago, have made radical reductions in the number of their employes. The departments principally affected are the mechanical, construction and maintenance of way. In these lines of work it is estimated that at least 35,000 men have been laid off during the last week.

One of the notable exceptions is the Chicago, Milwaukee and St. Paul Railway system. This road only recently laid off nearly one thousand men in the car shops, but as regards construction, the St. Paul is devoting its energies toward completing its extension to the Coast, and has only recently engaged 1,200 men on that great task.

Nearly all the other railway lines have stopped all construction work save that which is absolutely urgent. As yet, however, there has been no great reduction in the train service. Without exception, the reason given for these economies is that they have been forced upon the companies because of the financial stringency and the difficulty of raising ready cash to pay large gangs of workmen.

The Pennsylvania Railroad, which about a month ago inaugurated a system of economy, has revised the original program and made its effects more far-reaching. Officials of the road state that, owing to the discouraging outlook for the coming months and the large increases recently made in operating expenses, it has been decided to cut down expenses as far as practicable with the ecomical movement of traffic.

Throughout the Pennsylvania system, beginning to-day, shop forces working on repairs will be put on an eight-hour basis, but it is added that all standards for repairs will be strictly maintained. While reductions will be made in the maintenance-of-way forces, the tracks will be put in the best possible shape for the coming winter.

Similar economies are being practised by industrial concerns throughout the country. It is announced that the Alabama Consolidated Coal and Iron Company has laid off 5,000 men out of about 11,000 it was employing up to two months ago. This company has also shut down two of its blast furnaces, and has discontinued the operation of its principal mines.—*New York Herald of Nov. 18.*

PERFORMANCE OF STEAM SHOVELS.

Culebra Division.

Period.	Average number of steam shovels at work.	Number of working days in month.	Output per shovel per day, cubic yards.	Output per shovel per month, cubic yards.	Rainfall—Inches.		Maximum temperature in sun at Empire (degrees Fahrenheit).
					Empire.	Culebra.	
1906—							
January.........................	12.83	26	363	9,430	1.28	1.19	......
February	12.48	23	587	13,494	0.57	0.64	......
March............................	12.37	27	716	19,335	0.45	1.34	......
April...............................	12.33	24	720	17,289	11.42	8.43	......
May..................................	12.41	27	581	15,684	7.54	7.25	......
June..................................	14.81	26	539	14,026	6.92	8.94	123
July..................................	16.64	25	378	9,441	14.61	20.26	127
August..............................	16.93	27	536	14,461	11.84	12.97	132
September.........................	21.83	24	568	13,664	7.41	6.22	130
October.............................	22.67	27	532	14,373	3.97	8.46	128
November..........................	20.46	24	459	10,833	21.05	19.19	120
December..........................	22.68	25	491	12,267	8.15	9.09	108
1907—							
January............................	31.04	26	702	18,248	0.08	0.00	104
February	39.87	23	674	15,966	0.13	0.49	108
March...............................	43.88	25	741	18,530	0.16	0.08	105
April.................................	44.12	26	765	19,884	0.09	0.04	110
May..................................	31.70	26	833	21,674	6.22	7.45	118
June..................................	38.28	25	651	16,266	13.53	14.74	118
July..................................	43.38	26	680	17,670	9.85	9.42	118
August..............................	39.70	27	729	19,680	11.28	12.82	120
September.........................	38.50	24	811	19,468	10.61	10 72	123
October.............................	37.63	27	813	21,963	15.44	15.27	123

The performance of the shovels is based upon the working day of eight hours.

The performance of shovels in May was somewhat abnormal on account of labor disturbances. On May 13 so large a number of steam shovel engineers and cranemen had resigned or quit work that but 13 steam shovels were working. As there was no disturbance in the Transportation Department, there was, for a time, available for each shovel an amount of transportation out of all proportion to that used under normal conditions.

WIDTH OF CANAL LOCKS.

Should Be at Least 125 Feet.

The advent to this port of a Cunard liner with a beam of 88 feet, and the recent placing of an order by the Hamburg-American Company for a transatlantic liner to have a beam of 90 feet to say nothing of the fact that we have two battleships building whose beam is to be over 85 feet, has naturally directed the attention of the Government once more to the question of the proper width to be given to the locks of the Panama Canal. It is the locks that determine the capacity of the Canal; and seeing that the width at present decided upon is only 100 feet, the Canal engineers have decided that a reasonable regard for the developments of the future makes it necessary to increase the width at least to 125 feet. Col. Seibert, one of the engineering officers attached to the Isthmian Canal Commission, and Civil Engineer Rousseau, the naval member of the Commission, have recently returned to the Isthmus after consultation upon this subject with the authorities at Washington. Although a width of 125 feet has not been finally decided upon, it is considered probable that the locks will not be built with dimensions less than this.

The desirability of giving ample width to provide for the needs of the future is emphasized by the fact that in the towing-tank investigations made in connection with the design for the *Lusitania* and *Mauretania*, it was found that in large vessels there was a decided advantage to be gained from a considerable increase of the ratio of beam to length, a fact which was also established at about the same time during independent investigations conducted in Germany —*Scientific American*, Nov. 2.

One Hundred Feet Sufficient.

As briefly noted in our last week's issue, the Panama Canal Commission is considering a proposal to make the locks for the Canal wider than the 100 feet which was decided upon a year or more ago. The governing motive for this increase of width appears to be a possible future increase in the beam of the largest battleships. At present the British battleship *Dreadnought* has a beam of 83 feet. The two new battleships under construction by the United States, of the *Delaware* class, have 85.3 feet beam The naval designers have in contemplation a 25,000-ton battleship with a beam of 88 feet, but such a vessel is not yet authorized. All these vessels, however, could pass the locks now designed. It is therefore only the possibility of still larger war vessels in the remote future that furnishes an argument for increasing the width of the locks.

So far as the merchant marine is concerned, there is no reason to widen the locks. The two new huge Cunarders, the *Lusitania* and *Mauretania*, are larger by far than any other vessels afloat, and there is plenty of margin to accommodate them in the lock chambers as now designed. Further than this, these huge vessels are well understood to be in advance of actual commercial demands. As explained in these columns a few weeks ago, their construction was a matter of advertising and success in the sporting field to break the transatlantic record. As a purely commercial enterprise they are not expected to be profitable, and would not have been undertaken by the Cunard Company, had not the British Government paid a large part of their cost.

But even if these vessels did represent the coming type for the transatlantic service, there is no reason to believe that any such monstrosities of marine architecture will be needed or will be economical for handling the traffic that will pass through the Panama Canal. So far as the trade with the ports of Asia, Africa, Australia and the west coast of South America is concerned, it must be remembered that the majority of the harbors of these countries are of moderate depth, and that there is little likelihood for a long period of years to come that the harbors will be deepened sufficiently to admit vessels of any size approaching these transatlantic liners. Even if we foresee, after a long term of years, a time when vessels like the *Lusitania* are demanded for the traffic between the chief Asiatic ports and the United States, it must be remembered that the present locks have length, width and depth sufficient to accommodate vessels considerably larger than the *Lusitania*.

The question comes, therefore, whether it is worth while to increase the width of the lock chambers above the 100 feet now proposed, solely to permit a few huge monstrosities in battleships, not yet built nor even planned, to pass through them. So far as we are now informed, such an increase in width, dictated purely by naval considerations, would be extremely unwise. It must be borne in mind that the objection to increasing the width of the locks is not merely the increase in cost, or even the increase in size of the lock gates. These are important, but not so important as the fact that the wider locks will require a longer time to fill and to empty, and will increase to some extent the time required for the passage of every vessel that goes through the Canal Even the present locks, far in excess as they are of any previous construction of this sort involve very complicated problems in the design. These problems can be successfully solved, we have no doubt whatever. But every further increase in the size of a lock chamber makes a very important difference in working out the design.

It must be remembered that the dimensions at present proposed for the locks are largely in excess of any present requirements for either merchant or naval vessels, and that the locks are far larger than any heretofore planned for the Panama or any other interoceanic canal. We believe the concensus of opinion of the engineers who have given most careful study to the subject would be against any further increase in these dimensions. It is to be hoped, therefore, that the fact that the Canal work is now in the hands of military and naval engineers solely, may not lead to any error in changing the lock dimensions already fixed upon.—*Engineering News*, Oct. 31.

One Hundred and Ten May Do.

The serious official consideration which is being given to the question of the size of the Panama Canal locks is undoubtedly merited by reason of the importance of the question, and the announcement that an increase of the width of the locks by ten feet has been decided upon will be generally received with satisfaction. Since the lock type of canal has been adopted it certainly behooves its advocates and the executors of their plans to vindicate it by obviating every material objection and proving it to be, as they have confidently declared it to be, essentially preferable to the sea level type, even at the same cost of time and money. They must therefore make sure that the lock Canal will give passage to the largest ships with as much ease, security and expedition as would a canal without locks.

That means, obviously, that the locks must be sufficiently capacious thus to handle any ships which are now afloat and any which are likely to be built in the near future, or that they shall be susceptible of enlargement to meet the needs of larger vessels without suspension or obstruction of commerce. It would be unwise to say that no ships of the size of the *Lusitania* will ever be sent that way, seeing what large vessels are already in use in the Pacific as well as the Atlantic and how strongly the tendency in several maritime nations is toward the construction of mammoth ships. Of course, to say that we shall probably not want to use it much, if at all, for our great battleships would be simply stultifying. Nothing about the Canal as a great national work is more imperative than that it shall be adapted in the most perfect manner for the use of our very largest naval vessels.

Entirely apart from future developments, therefore, the present demand is for a canal which will give commodious passage to ships of 88 feet beam and 785 feet length. We may well doubt whether the locks as originally planned would do that, A width of 100 feet would leave only six feet at each side of the *Mauretania* or of one of the new battleships which this country is about to build. Theoretically, on the principle that "a miss is as good as a mile," that might be enough. Indeed, a ship 99 feet wide would be quite safe in a lock 100 feet wide, provided she could be kept perfectly true in the centre. But in raising and lowering the ships in the locks it would in practice be exceedingly difficult—without taking entirely too much time in the process—to avoid some oscillation, and the results of even a slight impact of a 25,000-ton steel ship against the walls of a concrete lock are not to be contemplated without much apprehension. The additional ten feet now decided upon will increase the space at each side of the ship to eleven feet. That may be enough, but we doubt if many prudent engineers will consider it an excessive, if even an ample, margin of safety.—*New York Tribune*, Nov. 1.

AN EMPLOYE'S LETTER.

Conditions on the Isthmus by a Man on Leave.

Sir: Your little note in your issue of last week concerning the conditions at the Isthmus of Panama is interesting to me, for it shows that the official reports contained in THE CANAL RECORD are appreciated in your office. Fortunately the grumblers at the Isthmus have now been largely returned to the United States, whence they never should have gone to take part in canal work. It is a fact that the conditions on the Isthmus are by no means those to which a number of the younger engineers and other employes were accustomed. They went to the Isthmus evidently expecting it to be a sort of glorified picnic ground. They were disappointed and in some cases their families were put to much inconvenience. These people have all very naturally expressed their adverse opinions of the conditions. On the other hand those of us who have been accustomed to work in the field in different parts of the United States have almost without exception been satisfied with the manner in which the Government is endeavoring to make us comfortable. The line of the ditch is a good ways from home and it takes money and men to build houses and carry on large camps. It also takes time, and inability to appreciate the importance of this last factor is the primary cause of most of the complaints that were formerly current concerning the Canal work.

Where new work is being started it goes without saying that the accommodations for some of the men are naturally cramped. This is so on every large piece of construction with which I was ever acquainted. I have been forced to sleep under shacks many times while camps were being constructed, and accordingly the temporary accommodations provided on the Isthmus on new work did not seem at all out of the ordinary, except as they were somewhat better than those that are usually provided in the States. Nevertheless, some young men, whose experience on construction had been obtained wholly in connection with municipal work, considered themselves terribly abused by being obliged to sleep in cramped quarters for a few weeks. I noticed that it did little good to endeavor to explain to them that the conditions were only what they would encounter in the United States under similar conditions, for out of their experience in the vicinity of cities where plenty of quarters was always available, they have proceeded to criticise everything that has been done for their comfort in a very silly manner.

In the camps that have been established for some time, the accommodations have been far better than those provided by the average contractor, while the attention paid to sanitation is really remarkable. The medical supervision of all the men leaves nothing to be desired, and any engineer who wishes to become familiar with construction under tropical conditions and is not afraid to live away from the bright glare of electric lights along Broadway can not do better than to join our force. We have plenty of opportunities for recreation, and various amusements are being arranged as opportunity arises. In fact from all I can learn, the only organization which at all compares with our own in the general attempt to-get together in the most sociable way is that of the Board of Water Supplies of the city of New York. Our organization is a good deal larger than that, and naturally there are more grumblers in it. I doubt if you ever saw an organization of 250 people in which there was not more or less jealousy, and a few of the class which is never happy without grumbling. Our staff is so big that we have a good many of these people; we are accustomed to them and pay no attention to them, for we know that they are not happy without grumbling, and many of them are otherwise good fellows and work hard. But the kicks they make are apparently misunderstood among the people at home, and it is for this reason I am sending you these few comments.

Very truly yours,

ON LEAVE.

—*The Engineering Record*, Oct. 26.

A Scenic Railway Line.

The route of the Panama railroad will be relocated so as to parallel the Isthmian Canal instead of crossing it half a dozen times. It is proper that in such a place the railroad should play second fiddle. The Canal will make it a fine scenic line.—*St. Louis Globe-Democrat*.

SOCIAL LIFE OF THE ZONE.

Preparations for Meeting of Zone Federation of Women's Clubs.

The executive board of the Canal Zone Federation of Women's Clubs met at Cristobal, November 23, to decide upon arrangements for the general meeting of the Federation on January 4. It was voted by the board to have an all day session and a regular order of business was adopted beginning with a business meeting in the morning at 9 o'clock. The afternoon session will begin at 2 o'clock and will be of a semi-social character. There will be addresses and a short musical program; tea will be served and the meeting finished in time to enable the visitors and delegates to return on the evening train.

Two committees to act at each session were elected. Each club has the privilege of sending four delegates, including the president, who will act as chairman of her delegation, and who will be expected to give a brief résume of the work of her club, at the morning session. A member from each club will also be elected to act on the advisory board of the federation, of which Mrs. Frank Morrison, Gorgona, is chairman. It is advisable that this election take place and the names of the members elected be sent to Mrs. Morrison as soon as possible. The names of the delegates to be sent to Mrs. Ralph R. Wolf, Gorgona, recording secretary to the federation. All club members are invited to be present though only delegates will have the right to vote.

The Culebra Woman's Club has been reorganized under the following governing officers: Mrs. Wm. L. Sibert, president; Mrs. James Murray, vice president; Mrs. Wm. H. Butler, secretary; Mrs. Wm. M. Belding, treasurer. The club held its first business meeting, following its reorganization, in the social room of the Commission club house November 19, all the officers being present. There was a large general attendance and much enthusiasm was manifested.

Much interest has been shown in the Spanish classes which have been organized in the educational department, Mrs. L. L. Finley, chairman; Mrs. Sargent has been been appointed teacher. Instruction will begin at once and the class will meet twice a week in the club rooms. A temporary music committee, Mrs. James Murray, chairman, was appointed to take charge of an entertainment to be given on Thanksgiving Eve. The amusement committee under Mrs. R. W. Wheeler will form bowling clubs and promote the use of the gymnasium among the club women.

The club will meet on the first and third Thursdays of the month at 2.30 p. m.; the next regular business meeting being on Thursday, December 5.

The Gatun club held its regular meeting November 15, the president, Mrs. Chester Harding, being in the chair. The work of the club is now well in hand and the Spanish classes will begin as soon as pending arrangements have been completed. The club will meet again December 6.

The Ancon club held its meeting November 20 in the Sun Parlor of the Hotel Tivoli. The vice president, Mrs. J. M. Maguire, was in the chair, and the attendance was good. The reports of the various committees showed satisfactory results. The most interesting was that of the philanthropic department which has been able to start a small fund to be used for charitable purposes at the discretion of the club.

The evening classes in Spanish will begin this week; application for admittance to these classes should be made to the secretary, Mrs. D. F. Quimby.

As chairman of the special committee of art, Madam LePrince presented a carefully drawn up paper on the founding of an art and crafts society for the study and practice of art on the Isthmus.

Several new names for membership were proposed and will be acted upon at the next meeting. The Chair acknowledged the gift of a fine gavel from the men of Ancon to the Woman's Club which was presented with the wish that it might always be used with "good will toward men."

Waiving the literary program, the vice president introduced the Ven. Archdeacon Bryan, who gave an address on community life and the development of the social spirit. An informal reception followed, tea being served.

The bachelors of the Corozal hotel entertained the Corozal Club at an informal reception and dance November 16. There was an attendance of about 150. Special trains were provided and Ancon, Pedro Miguel and Paraiso were well represented. The rooms were decorated with palms and ferns and presented a pleasing appearance. A whist party was organized by Mrs. J. P. Kyte for those not dancing.

At the regular business meeting of the Paraiso club, the president, Mrs. J. C. Barnett, presided; the secretary being absent, Mrs. Waid acted as secretary *pro tempore*. The club had taken up several matters of public interest and these were reported upon at the meeting. A committee appointed to ascertain if greater railroad facilities could be conceded, as only two trains a day stop at the station, were able to report that the official order had been given and as soon as a schedule could be arranged a special train would be put on to meet all passenger trains stopping at Pedro Miguel. They have also secured the promise of a special coach for ladies who object to smoking which will be attached to all passenger trains.

An official order has been issued permitting the use of the club room in the Commission hotel for the purposes of public worship on Sundays. Further efforts are being made to secure public benefits.

The club has under way arrangements for an entertainment to take place during the holiday season.

The Cristobal Woman's Club held its regular meeting November 20, with the largest attendance of any meeting since its organization. The program for the day was in charge of the educational department and consisted of an address delivered by Mr. D. C. O'Conner, Superintendent of the Canal Zone Schools, his subject being "The Educational System in the Canal Zone."

Interest in the department meetings continues and great activity is shown in them all. The home department finds no lack of subjects of benefit and pleasure. A recent meeting was devoted to the "Native Fruits and How to Prepare Them." The subject on another was "Lace-making and Mending." The next meeting of this department on December 5, will take up needlework and fancy work with practical demonstrations.

The educational department has started a Spanish class and has also taken up the subject of a recreation ground for the school children. It will later on attempt some work in physical culture.

The philanthropy department is finding many cases of destitution which claim its attention. It also hopes to organize regular settlement work.

The art and literature department continues its attractive study of Japan. The attendance in this department increases with each meeting. Later in the year's work afternoons will be devoted to modern authors, musicians and painters.

The Las Cascadas club held its social meeting November 21. The president, Mrs. O. G. Randall, presided, and the business proceeded in regular order. The club is advancing well with its work and new members are constantly being enrolled. The meeting was devoted to cards, and the entertainment committee served refreshments. The Pedro box party given November 16 was well attended and the evening was very much enjoyed. Six prizes were given. The success of the evening was the raffling of the boxes which resulted in the addition to the treasury of $62.50. The club has now sufficient funds to purchase a piano and it is hoped that the instrument will be in the club rooms for the Christmas party. November 28, being Thanksgiving Day, there will be no meeting of the club. The regular business meeting will take place December 5.

The Empire club is gradually increasing the scope of its work as well as its membership list. The meetings are well attended and much good work is being taken up by the various departments.

Civil Service Examination.

The local Civil Service examination, announced in previous issues of THE CANAL RECORD, will be held at the new Administration Building, Ancon, commencing at 9 o'clock a. m., Sunday, December 15.

JOHN K. BAXTER,
Secretary Civil Service Board,
P. O. address, Sta. A., Ancon, C. Z.

Visit of Bishop Neely.

THE CANAL RECORD:

Will you please announce to the Americans on the Zone that Bishop Thomas B. Neely of the Methodist Episcopal church will be in Panama on December 8, and will dedicate the new church and school building at the foot of Central avenue, near the new government building. All are invited, especially the Methodists. The hour of service will be at 10 a. m. We desire a large representative American audience. Bishop Neely has charge of all South America and is passing through on his annual visitation.

JOHN C. ELKINS,
Minister in Charge.

Panama, Nov. 19.

Pioneer Club.

A meeting of residents of the Isthmus who arrived during May, June, or July, 1904, or earlier, as employes of the Commission, will be held in the music room of the Hotel Tivoli, Wednesday evening, November 27, at 7.30 o'clock, for the purpose of perfecting the organization of the Pioneer Club.

RESERVOIRS AND WATER SUPPLIES.

Water Service of the Zone Districts.

The water supply service of the Zone includes four main storage reservoirs and a number of pumping plants working either in conjunction with the reservoirs or taking their supply from running streams.

THE MOUNT HOPE RESERVOIR.

This is the largest of the reservoirs. It has a capacity of 465,000,000 gallons and supplies the city of Colon and the town of Cristobal, which includes the supply for the ships, the Isthmian Canal Commission's shops, and the Panama Railroad Company's shops and round houses. The last dry season was unusually long, continuing for 140 days. At the close of the season there was remaining in the reservoir 116,000,000 gallons. The water was at that time 7.2 feet above the lowest in-take in the gate chamber, and constituted a sufficient supply for fifty days. By pumping into the gate chamber a sufficient supply could have been obtained for another dry season. The water remained at the same elevation from June 23, when the dry season closed, till June 30, when it began to rise. On November 1 the elevation of the water was 45.3 feet, the elevation of the spillway being 45.1 feet.

A filtration plant at Mount Hope is connected with this reservoir. It was built during the last fiscal year and was put into operation in July. Water can be supplied to the city mains either from the Mount Hope standpipe by gravity or by pumping directly into the mains.

RIO GRANDE RESERVOIR.

This reservoir supplies the entire district between Rio Grande and the Pacific ocean, including the city of Panama, and Culebra which is north of Rio Grande. It has a capacity of 362,000,000 gallons at the present time. An addition of three feet is being made to the height of this dam, and the work will be completed within the next ten days. Its capacity will be increased 125,000,000 gallons by this addition. The average consumption is 2,700,000 gallons per day. With the exception of the Mount Zion service at Culebra, and the pumping plant at Cucuracha, all the water from this system is supplied by gravity. A filtration plant for the supply of the city of Panama has been completed and put in operation during the past year.

CAMACHO RESERVOIR.

This reservoir supplies Empire, Camacho, Buenavista, White House and Las Cascadas. The elevation of the crest of the dam is 370 feet and of the spillway 365 feet. On November 1, water was going over the spillway and the capacity of the reservoir at that time was 375,000,000 gallons. The average daily consumption of this reservoir is 870,000 gallons. With the exception of Empire hill this entire district is supplied by gravity.

THE GATUN DISTRICT.

The supply for this district is secured from the Gatuncilla river, a dam having been thrown across the stream to prevent the merging of its waters with those of the Chagres river. This dam makes the elevation of the Gatuncilla river 24 inches higher than the back up of the Chagres at high tide. Water is distributed from tanks, to which it is raised by means of a pumping system, and is limited only by the capacity of the pumps.

THE GORGONA DISTRICT.

This district includes the towns of Gorgona, Caballo Viejo, Mamei, Jamaica Town, Matachin and Santa Cruz. The water is obtained from the Carabali river, across which a dam has been constructed, which gives a supply of 160,000,000 gallons.

THE FRIJOLES DISTRICT.

This district comprises Tabernilla, Frijoles, San Pablo and Barbacoas. The water supply is taken from the Rio Frijoles, from which it is distributed by pumps.

All inhabitants have been removed from the watersheds from which the water is obtained. There are distilling plants at all points, except Colon and Panama, which have filtration plants. From these plants distilled water is distributed by the Department of Labor, Quarters and Subsistence to all households, camps, offices, workshops, mess houses, etc.

Public Sentiment About Canal Work.

THE CANAL RECORD.

As the result of the observations of a journalist whose business it is to watch the trend of public opinion, this letter may be of some interest to your readers.

A few years ago, I believe that I was the only writer who discussed the Canal work with any degree of optimism and it was difficult to persuade an editor of a magazine or newspaper to lend his columns to any favorable comment on the Commission or the undertaking. Several causes, which defy exact analysis, induced that condition.

The present attitude of press and public is an entirely changed one. The editors who persisted in looking at the Zone through the small end of the telescope and who eagerly printed any canard that reflected on the management, now treat the matter with cheerful rationalism. Indeed, in some cases there is a regretable tendency to go to the other extreme and refer to the undertaking as practically *un fait accompli.* The people are beginning to have an intelligent understanding of the task in its various phases and to realize that its management has been cleaner than that of any great enterprise the Government ever entered upon. They have learned that all classes of employes are doing splendid work under strange and difficult conditions. In short, the men on the Isthmus may have the satisfaction of knowing that we in the States are fast acquiring a proper sense of appreciation and sympathy in respect to their efforts and they can never again be subject to the shameful misrepresentation of the past.

Many of us at the ensuing Thanksgiving festival will thank the Lord for the display of pluck and energy that the boys at Panama are affording us. With cordial good wishes for all. I am, sincerely yours,

C. H. FORBES-LINDSAY.

Philadelphia, Nov. 7.

Work in the Chagres Division.

In the Chagres division, the part of the Canal prism crossing the Matachin peninsula, has been cleared preparatory to excavation at this point. Ground was broken on the 15th instant for track leading in from the Panama railroad across the dumps to the prism.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

CRISTOBAL.

Bowling matches to be held Thanksgiving afternoon:

Taylor vs. Barte, Strong vs. Nelson, Rotch vs. Robinson, Porter vs. Dillon, J. Thomas vs. Petroskey and Valentini vs. Nolan.

A special Thanksgiving service was held on Sunday afternoon. Judge Lorin C. Collins made the address and the musical program was furnished by Mr. J. A. La Barge, tenor soloist, and Miss Josephine Hills, violinist.

GORGONA.

On Tuesday night, November 19, a series of contests began to decide the indoor championships of the Gorgona association. There will be twelve events in all, and they will be held according to the following schedule:

Tuesday, November 19, running high jump; Thursday, 21, exercise on horse; Saturday, 23, three standing broad jumps; Tuesday, 26, fifteen-yard dash; Tuesday, December 3, exercise on parallel bars; Thursday, 5, standing high jump; Saturday, 7, running broad jump; Tuesday, 10, exercise on horse; Thursday, 12, one standing broad jump; Saturday, 14, potato race (three potatoes); Tuesday, 17, exercise on parallel bars; Thursday, 19, two standing broad jumps; Saturday, 21, potato race (six potatoes). First place in each event will count five points; second place, three points; third place, one point. Mr. La Rose wishes to announce that a gold, silver and bronze association watch fob will be given to the three men making the highest number of points in the entire series.

The following program is announced for December:

Thursday, November 28, Thanksgiving Day—La Barge Lyceum Entertainment Company.

Sunday, December 1—Address by Mrs. J. H. Soby.

Saturday, December 7—Dramatic entertainment entitled "Black Justice," by the dramatic club.

Sunday, December 8—Address by Mr. H. L. Stuntz.

Tuesday, December 10—Concert by the *Prince Eitel Friedrich* band.

Sunday, December 15—Address by Mr. H. D. Reed.

Wednesday, December 18—Lyceum Entertainment by the "Ernest Gamble Concert Company."

Tuesday, December 24—Grand Christmas tree entertainment; program to be given by the children.

EMPIRE.

The Rally Day exercises on Sunday, November 17, were very successful. It was decided that a Canal Zone Sunday club be organized which will occasionally arrange similar events.

A new class in the study of Spanish has been organized with an enrollment of fifteen men. The mechanical drawing class is filling a long felt need and is making good progress. Other classes such as stenography, mathematics, etc., are being asked for and will be organized as soon as instructors can be found.

Friday evening last, Mr. L. F. La Rose, physical director at Gorgona, met the members who are interested in gymnastics, athletics, and indoor games for the purpose of organizing gymnasium work. Mr. G. E. Gustavson will have charge of this branch of the work until the physical director arrives from the States. Monday, Wednesday and Friday nights will be the regular schedule for calisthenics, apparatus work and games. All members are invited to join in this feature of activities.

An old time country Christmas tree entertainment is being planned for Christmas Eve.

CULEBRA.

The Culebra bowling team won two out of three games from Empire in the Bowling League contest Saturday night, making 15 games won out of the last 18 rolled. The three high scores for the week were Lamster 250, Vogel 245, and Delehanty 225.

The regular opening of the gymnasium classes will begin Monday evening, December 2. Besides regular class work, games and competitions will be special features.

The concert to be given by the Association has been postponed to Friday evening, December 6. A fine program has been arranged and an evening of pleasure may be looked for.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Go-as-you-Please Across the Isthmus.

The Canal Record:

Will you be kind enough to correct the impression conveyed by the heading to my communication in your last issue as regards the walking match. My idea is to cover the ground as fast as possible, go as you please, run or walk, or both. I have received four communications from different parts of the line showing great eagerness on the part of the writers to enter. Would suggest that if some one would start the "ball rolling" and make arrangements, that 6 a. m. would be the best time to start, enabling the men to finish before dark.

Henry M. McKeowm.

Gorgona, C. Z., Nov. 17.

A Twelve Hour Record.

The Canal Record:

In reference to the paragraph which appeared in your issue of last week under the title "Walking Match Across the Isthmus," I may mention for the benefit of "Inquirer" that the Isthmus has been walked from Cristobal to Panama from curiosity and for mere novelty. Last April I covered the distance on the Panama railroad track in twelve hours. For the tropics, and under the conditions, I consider that rather good walking. I don't intend to "strike the pike" for the same purpose again, as I can get better sport nearer at hand.

Robert Galbraith.

Gorgona, C. Z., Nov. 18.

Fifteen and One-Half Hours.

The Canal Record:

On page 87 of The Canal Record I note an article "Walking Match Across the Isthmus," and in reply to several of the questions asked therein, beg to state the following:

In either the second or third week in August, 1907, Mr. W. C. Buske, erecting engineer of the Shaw Electric Crane Company and myself, started from the beach at La Boca at 6 a. m. on Saturday, and at 6 p. m. that evening we were at Bohio. We were held up from 11 a. m. to 1.30 p. m. at Gorgona by a heavy rain, and were also delayed at least an hour and a half in the afternoon for the same reason. We started again from Bohio at 6 a. m. Sunday, arriving at the Colon station a few minutes before 12 noon. I can safely say that we walked from the Pacific to the Atlantic in 15½ hours, and had the weather been more favorable we could have done better. We were not walking for a record either, but simply taking a walk from ocean to ocean, and without any previous training.

These are true facts, and can be corroborated at several points along the line.

C. S. Goerlich,
Stenographer, P. R. R.,
Office of R. & F. A. & P. C.

La Boca, C. Z., Nov. 14.

Size of the Canal Force.

The Canal Record:

The report presented by the Chairman of the Isthmian Canal Commission for the month of September, 1907, published in The Canal Record (No. 8), says that the total force working for the Commission on the 30th of said month was 23,607 excluding the 6,238 men forming the Panama railroad force, and the Chief Sanitary Officer in his report for same month says that the Isthmian Canal Commission had 41,000 employes on the same date (Record No. 7). Which is the correct figure? Please publish answer in your next issue.

Panama, Nov. 14. Curious.

[The contradiction is apparent, not real. The Chairman states, in his report, that there were *working* for the Commission at the end of the month a total of 29,845 men, including the employes of the Panama Railroad Company. The Chief Sanitary Officer states, in his report, that the number of employes *appearing on the rolls* was 41,000. The difference between the two totals is accounted for by the fact that there are a large number of employes who work only a portion of the month, and a considerable floating element who quit and are re-employed under assumed names.]

Regular Army and Navy Union.

The Canal Record:

The following officers were elected and installed at the second regular meeting of Admiral Walker Garrison No. 40, Regular Army and Navy Union, U. S. A., held at Empire, C. Z., Sunday, November 10, 1907:

Commander, L. E. Herman, Empire; senior vice commander, Rufus Fulford, Gorgona; junior vice commander, C. C. Cameron, Culebra; chaplain, Joseph Franz, Cristobal; adjutant and paymaster, John H. Vaterlaus, Gorgona; quartermaster, C. A. Stephens, Ancon; surgeon, G. C. Bradford, Cristobal; officer of the day, P. D. May, Culebra; officer of the watch, F. M. Kaulbach, Cristobal, who are on the Enlisting Committee.

The meeting had a large attendance and a large amount of business was transacted, including the election of five candidates to membership. The next meeting will be held at the Municipal building, Empire, C. Z., on Sunday, November 24, at 2 p.m.

Lester E. Herman,
Com., A. W. G. No. 40,
A. I. G., R. A. & N. U., U. S. A.

Empire, C. Z., Nov. 12.

The La Boca Mess.

The Canal Record:

The best effort of men are always to be commended, and the efforts displayed in the service at the La Boca I. C. C. hotel are especially commendable. This fact is recognized by the patrons and is appreciated as is evident by the general satisfaction of the men whose work requires good service. This statement will be corroborated by the vast majority of the men who enjoy the privilege of eating at this hotel.

Thomas Hallinan.

La Boca, Nov. 22.

Sojourner's Lodge.

The Canal Record:

Sojourners' Lodge No. 874, A. F. and A. M. will meet at its hall in Colon on Saturday, November 30, 1907, at 8.15 p. m. in Extraordinary Communication to work in third degree. Masons in good standing are fraternally invited to be present.

Colon, Nov. 25.

Eli D. Sims,
Acting Secretary.

OFFICIAL CIRCULARS.

Lower Unit Cost.

To the Heads of All Departments and Divisions:

I desire to particularly impress upon all at the present time, the importance of carrying on all work with the strictest economy, both as regard to cost of material and cost of labor. The unit cost of work is as important, if not more so, than the total output.

The division of work and the distribution of duties under the present organization was originally made for the purpose of performing work at a minimum cost, and any portion of the organization will be changed without hesitation should circumstances arise, which give assurance that by so doing, lower unit cost will be obtained.

It is my desire that all employes, from the Heads of Departments down, shall devote their best energies to this matter, and I ask the cooperation of every one in securing the results desired.

I will be glad to receive suggestions from employes, which should be forwarded through the Heads of their respective Departments.

Geo. W. Goethals,
Chairman, and Chief Engineer,
Isthmian Canal Commission,
President Panama Railroad.

Culebra, Nov. 18.

Sick Leave.

To All Concerned:

At the 135th meeting of the Isthmian Canal Commission, held October 5, 1907, the following resolution was adopted:

Resolved, That the provisions covering sick leave on account of injury incurred in the performance of duty, adopted at the 129th meeting of the Commission, should be applied as follows:

For employes on both the gold and silver rolls, including laborers, the amount of compensation in such cases shall be calculated on the basis of an eight-hour day for consecutive days, including Sundays and holidays, no charge to be made for subsistence while at the hospital; provided, that before payment is made to any laborer who may be indebted to the Commission for transportation to the Isthmus, the usual deductions on that account shall be made from the amount due him.

Respectfully,

Geo. W. Goethals,
Chairman.

Furloughing Employes.

To the Heads of All Departments and Divisions:

Whenever, owing to the lack of material or suitable tools or for a similar reason, it is impossible to carry on work with economy and to the interests of the Government, employes should be furloughed without pay. In each case, the Head of the Department of Labor, Quarters and Subsistence should be notified. Employes should not be furloughed for a longer period than two weeks in any one month. If furlough during this period does not relieve the situation, they shall be transferred or discharged.

Geo. W. Goethals,
Chairman, and Chief Engineer.

Culebra, Nov. 16, 1907.

Transportation Coupon Books.

To the Heads of All Departments and Divisions:

Several instances have recently come to my attention where Panama railroad transportation coupon books have been issued to employes, without requiring the return of used or partially used books, previously issued. This is contrary to rules and steps must be taken at once to inaugurate such a system as will hereafter prevent any employe from having in his possession at any one time, more than one transportation trip-book, whether used or unused.

In case any violation of this order occurs, the employe responsible for issuing the new book before calling in the old book will be held equally responsible with the employe in whose favor the book is issued.

Geo. W. Goethals,
Chairman, and Chief Engineer,
Isthmian Canal Commission,
President Panama Railroad.

Culebra, Nov. 16.

COMPARISON OF PRICES.

Commissary Price-list No. 59, dated October 11, showing the retail prices of cold-storage provisions on the day mentioned and the prices on that day in the retail markets of New York:

		New York. cts.	Commissary. cts.
Beef, sirloin, roast	per lb.	20	22
Beef, rump, roast	do	16	22
Beef, Porterhouse	do	20	22
Beef, rib roast, short cut (not under 3½ pounds)	do	14	17
Beef, rib roast, second cut	do	14	15
Beef, chuck roast	do	10	12
Beef, soup	do	8	7
Beef, stew	do	14	10
Beef, corned	do	12-15	10-14
Beef, corned, sirloin butts, all lean	do	12½	16
Beef, corned, fancy boneless brisket	do	16	18
Steaks, sirloin	do	22	22
Steaks, Porterhouse	do	25	22
Steaks, rump	do	18	22
Steaks, tenderloin	do	22	22
Steaks, round	do	20	12½
Veal, cutlets	do	25	21
Veal, short-cut chops	do	22	20
Veal, loin	do	22	12
Veal, entire forequarters	do	10	9
Veal, for stewing	do	16	8
Mutton, entire forequarter	do	10	10
Mutton, short-cut chops	do	22	19
Mutton, leg	do	20	17
Lamb, for stewing	do	14	11
Lamb, entire forequarters	do	14	11
Lamb, short-cut chops	do	28	27
Lamb, leg	do	20	24
Pork, cuts	do	20	20

MISCELLANEOUS.

Liver, beef	per lb.	12	9
Livers, calf	apiece	75	50
Sausage, pork	per lb.	25	16
Sausage, Frankfort	do	20	17
Sweet breads, veal	do	90-1.00	1.20
Sweet breads, beef	do	25	25
Bologna	do	14	13½
Oysters, ½-gal. kegs	quart	30	each 70

POULTRY AND GAME.

Chickens, dressed (milk-fed)	per lb.	32	each 1.25
Fowls	do	20	do 85
Ducklings	do	25	do 1.25
Turkeys	do	24	per lb 26½
Broilers (chicken frys)	each	1.25	each 80
Squabs	dozen	3.00	do 35
Ducks (fatted)	per lb.	25	do 1.45
Eggs, fresh	dozen	35	dozen 34

CURED MEATS AND LARD.

Bacon, strips	per lb.	25	23
Bacon, English breakfast, sliced	do	28	26
Ham, sugar-cured, sliced	do	21	25
Ham, half (for boiling)	do	21	20
Hams, Yorkshire, imported	do		25
Lard, 5-lb. tins	each	85	65
Lard, 10-lb. tins	do	1.45	1.30
Lard, 25-lb. tins	per lb.	14	12½

DAIRY PRODUCTS.

Butter, prints, prime quality	per lb.	39	38
Cheese, cream	each	23	22
Cheese, Neufchatel	do	6	6
Cheese, Camembert	do	25	28
Cheese, Roquefort	per lb.	41	45
Cheese, Young America	do	22	22
Cheese, Swiss	do	28	30
Cheese, Gouda	do	30	30
Cheese, Cheddar Loaf	do	44	32
Cheese, Edam	each	1.00	90

FRUITS AND VEGETABLES.

Oranges	dozen	60	12
Apples	do	35	per lb. 8
Limes	do	20	hun. 30
Bananas	do	15	dozen 5
Peaches	do	60	per lb. 13
Grapes	per lb.	12	do 8½
Pears	dozen	60	do 12
Grape Fruit	each	8-15	each 3
Celery	bunch	15-25	18
Cucumbers	dozen	30	per lb. 10
White potatoes	per lb.	2	do 3
Cabbage	do	2	do 3
Lettuce	head	8	do 12½
Onions	per lb.	3	do 2
Cauliflowers	do	3½	do 8½
Tomatoes	do	4	do 5
Yams	do		2½

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending November 14:

FRESH MEATS.		Price. cts.
Beef, sirloin, roast	per lb.	*22
Beef, rump, roast	do	*18
Beef, Porterhouse	do	25
Beef, rib-roast, short-cut (not under 3½ pounds)	do	*16
Beef, rib-roast, second-cut	do	*14
Beef, chuck-roast	do	*11
Beef, soup	do	*6
Beef, stew	do	*8
Beef, corned	do	10, 12, 14
Beef, corned, sirloin butts, all lean	do	16
Beef, corned, fancy boneless brisket	do	18
Steaks, sirloin	do	*22
Steaks, Porterhouse	do	25
Steaks, rump	do	*18
Steaks, tenderloin	do	*20
Steaks, round	do	12½
Veal, cutlets	do	*21
Veal, short-cut chops	do	*20
Veal, loin	do	*13
Veal, entire forequarters	do	*19
Veal, for stewing	do	*9
Mutton, entire forequarters	do	*9
Mutton, short-cut chops	do	*18
Mutton, leg	do	*14
Lamb, for stewing	do	*10
Lamb, entire forequarters	do	*10
Lamb, short-cut chops	per lb.	*22
Lamb, legs	do	*18
Pork, cuts	do	20
Livers, beef	per lb.	9
Sausage, pork	per lb.	16
Sausage, Frankfurt	per lb.	16
Tripe, pickled, Honeycomb	do	12
Oysters, ½-gallon kegs	each	70
Pickled pig's feet	per lb.	6
Tongue beef	do	13
Tongue pig	do	12
Sausage, Bologna	do	15
Sausage, Lieberwurst	do	15

POULTRY AND GAME.

Chickens, dressed (milk-fed)	each	*$1.00
Fowls	do	75
Turkeys	per lb.	*25
Broilers, frys (chicken)	each	*55
Squabs	do	*30
Ducklings	do	*85
Eggs, fresh	per dozen	†36
Geese (about 10-lb)	each	$2.00

CURED MEATS AND LARD.

Bacon, strips per lb	per lb.	23
Bacon, English breakfast, slic'd	do	§26
Ham, sugar-cured, sliced	do	§25
Ham, one-half (for boiling)	do	§20
Ham, Yorkshire (imported)	do	25
Hams, Westphalia	do	45

DAIRY PRODUCTS.

Butter, prints, prime quality	per lb.	*38
Cheese, Camenbert	each	28
Cheese, Phila		22
Cheese, Neufchatel	do	6
Cheese, Roquefort	per lb.	45
Cheese, Young America	do	22
Cheese, Swiss	per lb.	30
Cheese, Gouda	do	30
Cheese, Edam	each	90
Milk, fresh	per quart	**15

FRUITS AND VEGETABLES.

Apples	per lb.	*9½
Bananas	per dozen	5
Pears	per lb.	†12
Cranberries	per lb	12
Onions, young	do	12
Apples, fancy table	per lb.	†9
Squash, Hubbard	do	5
Celery	bunch	18
Cucumbers	per lb.	†14
White potatoes	do	2½
Cabbage	do	*1½
Turnips	do	3
Lettuce	do	†20
Onions	do	2
Cauliflowers	do	†8
Yams	do	2½
Sweet Potatoes, American	do	2
Egg Plants	each	†12
Radishes	do	†10

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* Indicates reductions from last list.

† Indicates advance on last list.

** Indicates 5 cents allowed for return of bottle.

§ Sold only from Cold Storage and not from Commissaries.

NOTICE OF PRICE CHANGES.

		Old Price. cts.	New Price. cts.
Almonds, sugared Valencia	per lb.	40	20
Maple syrup, O. H., gallon	per tin	92	$1.20
Maple syrup, O. H. quart	per tin	29	35
Parsnips, 2s	per tin	8	10
Citron peel	per lb.	20	25

NEW ARTICLES.		Price cts.
Peaches in syrup, Nautical, 3s	per tin	25
Pears in syrup, Nautical, 3s.	do	30
Duck, white, linen, 28-inch, 2126-s470, stock No. 37,829	per yard	55
Duck, white, linen, 27½-in., 2126-s530, stock No. 37,831	do	80
Half-hose, men's, assorted, No. 3, 210, stock No. 37,823	per pair	40
Half-hose, men's, woolen, No. 134, stock No 37,827	do	30
Linen sheeting, No. 600, 72-inch, stock No. 37,828	per yard	90
Mixture suiting, m10,684, 54-inch, stock No. 37,826	do	75
Serge, cream, No. 1313, 56-inch, stock No. 37,824	do	$1 85
Serge, woaded, black, No. 829, 56-inch, stock No. 37,825	do	$1.90
Shoes, ladies', patent, blu., Oxf, No. 1084, stock No. 37,833	per pair	$2.60
Shoes, men's, patent welt, Oxf, stock No. 37,855	do	$3.10
Shoes, men's, Russia calf, tr. pt., blu., Oxf., stock No. 37,856	do	$3 45
Pipes, briar, lot No. 251, stock No. 37,834	each	$1.75
Pipes, briar, lot No. 252, stock No. 37,835	do	$1.75
Pipes, briar, lot No. 254, stock No. 37,836	do	$1.75
Pipes, briar, lot No. 164, stock No. 37,837	do	$2.05
Pipes, briar, lot No. 151, stock No. 37,838	do	75
Pipes, briar, lot No. 153, stock No. 37,839	do	$1.45
Pipes, briar, lot No. 160, stock No. 37,841	do	80
Pipes, briar, lot No. 161, stock No 37,842	do	80
Pipes, briar, lot No. 322, stock No. 37,843	do	$1.75
Pipes, briar, lot No. 311, stock No. 37,844	do	$2 05
Pipes, briar, lot No. 325, stock No. 37,845	do	$2.35

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Nov. 27, 1907.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Anderson, Carl
Anthiery, A.
Lond, W. C.
Borke, Fred A.
Bryant, Ed, care Mrs. Vina Bryant
Bowen, Henry
Drysdale, W. D.
Gale, Miss Hannah T.
Gayer, W. C.
Geddes, Thos.
Glemmer, Chas.
Claze, H. B.
Harding, Rev. Geo.
Harris, A. L.
Harvey, R. J.
Hider, Arthur
Howard, Mr.
Kummers, Adolph
House (73)
Keller, R.
La Rose, L. F.
Love, Miss Esther
MacDonald, D. J.
McPherson, Hugh
McKelvey, J.
Myers, Mrs. Minnie
Nicholson, Hubert
Richards, Miss Henretta
Riggs, E. J.
Roberts, Dr. G. J
Ryder, Dr. W. R.
Sealy, Emmanuel
Shaw, Burnley C.
Spencer, L. E.
Williams, Miss Loretta E.
Wilson, Chas A.

Vaccination.

TO ALL CONCERNED:

In order to properly enforce the vaccination ordinance and, at the same time to accommodate employes returning from their vacation, and in order to prevent unnecessary vaccination and friction resulting therefrom, this circular is to inform such employes that only a vaccination that has been taken in recent years is required and all persons who have been successfully vaccinated, in the opinion of the quarantine officer, can secure a certificate to that effect, which will remain effective and be accepted as evidence in this particular for a period of three years. This certificate will be accepted by the surgeons of Panama railroad steamers as evidence of immunity and it will not be necessary to revaccinate persons having such certificates.

This certificate of vaccination can be secured from the Quarantine Officer at Panama, but applicants for the same will be required to show such scars of vaccination before this certificate is granted.

(Sgd.) C. C. McCULLOCH, jr.,
Acting Chief Sanitary Officer.

Ancon, C. Z., Nov. 23.

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Sydney B. Williamson, Division Engineer, La Boca.
E. A. LeMay, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George P. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.

Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.

Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
E. H. Hale, Chief Clerk.
Geo. L. Campen, Water Commissioner, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Coolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
Translators: F. H. Sheibley and Charles M. Brown.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
J. M. Fernandez, District Judge, La Boca.
R. B. Myers, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry C. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quariers and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Ancon; C. C. McColley, Empire; Chas. L. Parker, Gorgona; Edgar Lowe, Cristobal, division superintendent.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Rainfall from November 1 to 23, 1907, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Total.	Maximum in one day.
Atlantic Slope.		
Cristobal	13.47	1.40
Brazos Brook	12.99	2.33
Gatun	12.50	1.74
Bohio	10.75	1.90
Tabernilla	9.70	1 85
San Pabl	10.13	1.85
Central Section.		
Bas Obispo	8.78	1.45
Gamboa	9.17	2.02
Empire	7.97	1.60
Camacho Dam	7.25	1.55
Culebra	5 95	.90
Rio Grande	6.88	.88
Pacific Slope.		
La Boca	8.77	1.82
Ancon	9 58	1 85
Naos	4.45	1.60
Chagres Valley.		
Alhajuela	3.49	.58

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Finance	*P.RR. Friday*	*Nov.*	*22*
Altai	*H.-A.. Saturday*	*Nov.*	*23*
Colon	*P.RR. Wednesday.*	*Nov.*	*27*
Prinz Eitel Friedrich	*H.-A.. Saturday*	*Nov.*	*30*
Atrato	*R.M.. Saturday*	*Nov.*	*30*
Advance	*P.RR. Monday*	*Dec.*	*2*
Venetia	*H.-A.. Saturday*	*Dec.*	*7*
Panama	*P.RR. Monday.*	*Dec.*	*9*
Dunottar Castle	*P.RR. Saturday*	*Dec.*	*14*
Prinz Sigismund	*H.-A.. Saturday*	*Dec.*	*14*
Trent	*R.M... Saturday*	*Dec.*	*14*
Finance	*P.RR. Thursday*	*Dec.*	*19*
Altai	*H.-A.. Saturday*	*Dec.*	*21*
Colon	*P.RR. Tuesday.*	*Dec.*	*24*
Prinz Eitel Friedrich	*H.-A.. Saturday*	*Dec.*	*28*
La Plata	*R.M.. Saturday*	*Dec.*	*28*
Advance	*P.RR. Monday*	*Dec.*	*30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Dunottar Castle	*P.RR. Friday*	*Nov.*	*29*
Prinz Sigismund	*H.-A.. Tuesday*	*Dec.*	*3*
Finance	*P.RR.. Wednesday*	*Dec.*	*4*
Trent	*R.M.. Wednesday.*	*Dec.*	*4*
Altai	*H.-A.. Saturday*	*Dec.*	*7*
Colon	*P.RR. Tuesday.*	*Dec.*	*10*
Advance	*P.RR.. Sunday*	*Dec.*	*15*
Prinz Eitel Friedrich	*H.-A.. Tuesday*	*Dec.*	*17*
La Plata	*R.M.. Wednesday.*	*Dec.*	*18*
Panama	*P.RR.. Saturday*	*Dec.*	*21*
Venetia	*H.-A.. Saturday*	*Dec.*	*21*
Dunottar Castle	*P.RR.. Thursday*	*Dec.*	*26*
Finance	*PRR.. Tuesday.*	*Dec.*	*31*
Prinz Sigismund	*H.-A.. Tuesday*	*Dec.*	*31*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Atrato	*R.M.. Tuesday*	*Dec.*	*10*
Trent	*R.M.. Tuesday*	*Dec.*	*24*

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon about December 9 and 21.

Requisitions and Mails.

Circular No. 183.

HEADS OF DEPARTMENTS:

A circular has been issued by the General Manager of the Panama Railroad Company to the effect that all mails being sent to the United States on Panama railroad steamers must be on board by 2 p. m on date of sailing. In order to comply with these instructions it will be necessary that all requisitions and papers destined for the United States which are forwarded to this office for transmission must be received by me at least the evening before the steamer sails.

On nearly every sailing day I receive requisitions for material to be ordered from the United States on the train arriving at Colon at 12.35 and as it takes at least an hour to distribute this mail and get it to the office, it is manifestly impossible for me to rewrite and check them in time to get them aboard by 2 o'clock.

It is therefore requested, in order that papers may not be delayed in this office from one sailing day to another, that all requisitions be mailed to reach me, as above stated, on the evening before the steamer is due to sail.

W. G. TUBBY,
Chief of Division
of Material and Supplies.

Culebra, Nov. 18.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, DECEMBER 4, 1907. No. 14.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

Gatun Lake.

The present plan of procedure in building the Gatun dam, and filling the lake thereafter, is about as follows:

A channel will be dug through Spillway hill about 300 feet wide, the bottom of it to be about at sea level. The Chagres river will be passed through this channel during the construction of the dam across the valleys on either side of Spillway hill. As soon as the portions of the dam abutting Spillway hill are high enough to stand 50 to 55 feet of water in the lake, it is proposed to build across the channel through Spillway hill a concrete dam high enough to hold the lake at the above mentioned level. This will be done for the purpose of facilitating the work of dredging in the Chagres division. During the dry season following the completion of this dredging, the dam across the channel through Spillway hill will be brought up to its full height, and a permanent spillway constructed, which will, of course, include the necessary regulating works by means of which the surplus water of the lake will be passed down to the level of the sea.

Preparations will be made, of course, for closing out the channel through Spillway hill before the Chagres is turned into it and all closures will be accomplished during the dry season, thus enabling the Chagres to form a lake to the height of the dam across spillway channel during the following wet season. It is probable that Gatun lake will not be allowed to fill to the height of 50 or 55 feet until the upper end of the locks at Gatun has been completed, and the upper gates have been erected. If the present plan of procedure is carried out, and the progress of the work comes up to anticipations, the upper portion of the locks at Gatun will be completed before the dams are high enough to permit the creation of a lake from 50 to 55 feet in elevation. This lake will make water transportation available for handling large quantities of timber that will be submerged by the lake, and contracts may be let for cutting this timber, or the timber sold to the highest bidder. The exact cubical capacity of Gatun lake is not yet known.

November Excavation.

The grand total of excavation during November, place measurement, was 1,838,486 cubic yards. This was only 30,243 cubic yards less than the grand total for October, although there were only 24 working days in November, against 27 in October. The daily average for November was 76,603 cubic yards, while that for October was 69,212, an increase during November of 7,391 cubic yards per day. On Saturday, November 30, the greatest daily output of record was taken from the Culebra Division —39,810 cubic yards with 40 shovels working, or an average per shovel for that day of 995 cubic yards.

Of the 1,838,486 cubic yards excavated, 1,816,439 were taken from the Canal prism, 1,033,719 by steam shovels, and 732,720 by dredges. From the Culebra Division the amount removed was 778,860 cubic yards; from the Gatun locks and spillway, 162,622, and from Mindi, Chagres and La Boca Divisions, 92,237.

The total by dredges was 782,720 cubic yards, 417,297 at Colon, and 365,423 at La Boca. On accessory works outside the Canal prism, 22,047 cubic yards were removed—11,772 by steam shovels, and 10,275 by dredges.

Detailed November excavation is appended:

Department of Excavation and Dredging.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Culebra Division...	778,860	11,772	790,632
Mindi..................	40,003	....	40,003
Chagres Division...	44,044	....	44,044
Total.................	862,907	11,772	874,679
Dredges—			
Colon Dredging Division..............	417,297	10,275	427,572
La Boca Dredging Division..............	365,423	....	365,423
Total..............	782,720	10,275	792,995
Grand total........	1,645,627	22,047	1,667,674

Department of Lock and Dam Construction.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Gatun, locks..........	121,635	....	121,635
Gatun, spillway	40,987	....	40,987
La Boca, locks......	8,190	....	8,190
Total..............	170,812	....	170,812

Entire Canal.

How excavated.	In Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
By steam shovels ..	1,033,719	11,772	1,045,491
By dredges......	782,720	10,275	792,995
Total..............	1,816,439	22,047	1,838,486

Mean rainfall along Canal (eleven stations), 10.73 inches.

November Rainfall for Three Years.

(MIDNIGHT TO MIDNIGHT.)

Station.	1905.	1906.	1907.	Av'ge since station estab'd.	No. of rainy days
Atlantic Slope					
Cristobal......	17.92	26 64	15.37	20.98	28
Brazos Brook	....	23 66	13.90	18.78	26
Gatun...........	16.89	24 51	14.27	18 56	28
Bohio...	13.01	16.99	11.38	18.07	27
Central Sec.					
Tabernilla	....	....	10.80	....	26
San Pablo......	....	....	10.93	....	28
Bas Obispo ...	....	....	9.85	10.78	23
Gamboa	5.49	15.92	10 42	11.94	25
Empire..........	5 21	19 02	10.40	11.54	21
Camacho.......	....	17 31	9 51	13 32	23
Culebra...	13 46	17.23	6 91	12.37	25
Rio Grande...	4.43	15.59	7 62	7.74	23
Pacific Slope					
La Boca.........	6.67	14.43	10 03	9 81	19
Ancon...........	8.81	13 57	10 51	11 33	21
Naos.............	....	16.76	4.75	7 17	19
Chagres Val.					
Alhajuela... ...	4 14	21.38	4.32	12.74	21

Gatun Steam Shovel Work.

The maximum daily output for the week ending November 23, of the five shovels at the Gatun lock site, was made on Thursday, November 21. Total number cubic yards, car measurement, was 5,856, being an average of 1,171 cubic yards per shovel.

For the week ending November 23, there were loaded by shovels 113 and 114 at the spillway 8,460 cubic yards, car measurement. The largest day's loading for both shovels was on 18th instant, when 1,812 cubic yards were taken out. Shovel 114 made the largest output for any one day in the week, loading 1,116 cubic yards on the 23d instant.

Another Tug for La Boca.

The Isthmian Canal Commission has purchased for $66,000 the tug *E. G. Reynolds* for service on the Pacific side of the Isthmus. She has been ordered to Philadelphia where electric lights and steam steering gear will be installed before she starts around the Horn. This will be the third vessel to make the long trip to La Boca. Two others are now well on the way, the sea-going suction dredge *Culebra*, which sailed from Sparrows Point, Maryland, on October 9, reported her departure from Punta Arenas, Chili, December 2, and should arrive at La Boca in about a month; and the *Katherine Moran*, a sea-going tug, which sailed from New York on October 5, and reported her arrival at Montevideo on November 28.

PAY AND PRIVILEGES.

A Comparison Between those Granted on the Isthmus and at Washington.

In the issue of THE CANAL RECORD of November 20, you print a statement of the amounts included in the pay roll of the Mechanical Division for the month of October to cover the pay of employes in transit from the United States and of employes on vacation leave, sick leave and injury leave, with comment which might create the impression that the amount expended by the Commission for these items is excessive. There have also appeared in recent issues of certain newspapers in the United States statements relative to the amounts expended by the Isthmian Canal Commission for bachelor quarters and married quarters, and to the salaries paid employes as compared with the salaries paid for similar work in the United States, all tending to the conclusion that employes of the Isthmian Canal Commission enjoy unusual privileges and are extravagantly remunerated. As the impression thus created is unfair both to the Commission and its employes, of whom I am one, it is desirable, I think, that the facts should be presented in a light more favorable to both.

A comparison of the leave privileges allowed employes of the Isthmian Canal Commission with the similar privileges allowed employes of the Department at Washington will relieve the Commission from criticism on the score of extravagance.

I am not perfectly familiar with the present rules applicable to sick leave in the Government service in the United States, but two years ago an employe in the event of sickness was allowed thirty days leave of absence in each calendar year. This leave might be taken in the month of January if necessity so required.

An employe of the Isthmian Canal Commission may be granted fifteen days sick leave for each six months' service, and this leave may be cumulative to an amount not exceeding thirty days.

The advantage is clearly with the Department clerk, for on the Isthmus an employe taken sick during the first six months of an annual period may be allowed only fifteen days sick leave.

An employe of the Government in the United States is allowed only thirty days annual leave with pay, but in reckoning this leave, Sundays, public holidays and the Saturday half holidays in summer are not included. By taking advantage of this method of reckoning, and including the maximum number of Sundays and holidays in their leave, Department employes can be absent on vacation with pay for as long as forty days.

An employe of the Isthmian Canal Commission is allowed forty-two days annual leave, including Sundays and holidays, but as the average transit time between New York and Colon is seven days, he has only twenty-eight days at his disposal in the United States.

It is evident from this statement that the Isthmian Canal Commission is not only innocent of extravagance in the leave privileges accorded to its employes, but that it is less liberal than other branches of the Government. This is particularly true of sick leave, in which large concessions might have been justified on the ground of the acknowledged debilitating effect of a tropical climate.

The matter of quarters is not deserving of serious argument. The Isthmian Canal Commission is compelled to provide quarters for its employes because there is no alternative. Apart from buildings bought or constructed by the Commission there is scarcely a habitable house between Panama and Colon. This applies to married quarters as well as bachelors quarters. The Commission should scarcely recruit its employes exclusively among single men, or make celibacy a condition to continued employment. So long as married men are employed—and their employment is necessary—quarters must be provided for them.

The Panama Railroad Company has always found it necessary to provide quarters for its employes, and I believe the United Fruit Company, and other American corporations doing business in the tropics, follow the same practice.

It has been proposed that a moderate rent be charged for quarters. This would be equivalent to a reduction of salaries—a step that critics of the Commission advocate as something in itself desirable and necessary.

The prevailing salaries here, as in other parts of the world, are in last analysis due to the operation of the law of supply and demand. The Commission, if I am correctly informed, does not appoint stenographers at $1,500 per annum from pure philanthropy or from lack of due economy in the expenditure of public funds, but because stenographers will not come to the Isthmus for less money. The attempt has been made to secure them for $1,200 per annum, but without success. The same conditions prevail with regard to other classes of employes Even at the present salaries, employes will not remain on the Isthmus. I am told that nineteen men were appointed to the Canal Zone Fire Department from January 1 to October 31, 1907, and that nine men have resigned to return to the United States. I believe it is also true that thirty-four postal clerks were appointed in 1906, and twenty resigned; and that in 1907, to October 31, forty-two postal clerks were appointed, and twenty-three resigned.

It is only by paying liberal salaries that the Isthmian Canal Commission can attract or retain competent employes. The sacrifices incident to this service are quite patent. Life on the Isthmus is of itself less pleasant than life in the United States; but this can be endured. The real drawback consists in the fact that service here, however meritorious, can not lead to permanent advancement. The average man when he accepts employment on the Isthmus separates himself from the great main current of American life. When the work here is completed, which may be within a period of six or seven years, he must return to a community in which he will be a stranger, without associations or friends, and probably without experience that will increase the commercial value of his services. A decade of his life will have been spent, and he will have nothing to show for it except what he may have saved from the salary earned in the employ of the Commission. Unless this salary is so far in excess of his actual living expenses that a considerable surplus can be accumulated to assist him in starting life anew at home, it will be to his manifest detriment to remain in this arduous and precarious service.

AN EMPLOYE.

Ancon, Nov. 29.

Proposals for Buildings.

The Division of Material and Supplies is calling for proposals, to be opened on Saturday, December 7, covering the construction by contract of two type No. 14, four-family quarters, at Empire, the Commission to furnish all material, delivered on the site and the contractor to furnish all labor.

Copies of the plans and specifications can be seen in the office of the Chief Engineer, at Culebra, or will be furnished to any intending bidder, upon request. A deposit of $5 will be required from each applicant, in order to ensure the return of the plans and specifications, after the proposals have been opened, at which time such deposit will be returned to the bidder.

Drowning at Rio Grande.

Mr. Bert S. Sturdevant, an employe of the Division of Municipal Engineering, was drowned in the reservoir at Rio Grande on the morning of December 2. Accompanied by two laborers he started to cross the reservoir in a small boat. When about 100 feet from the bank one of the men rocked the boat, which capsized and Sturdevant, being unable to swin, sank almost immediately in 40 feet of water. His body was recovered about thirty minutes later but all efforts at resuscitation failed.

OFFICIAL CIRCULAR.

Duties to Correspond with Ratings.

ALL CONCERNED:

My attention has lately been directed to a number of instances in which employes are assigned to duties entirely different from those covered by their ratings.

Please give instructions that this practice must be discontinued, and see that all cases in which the employe's rating and duties do not correspond are corrected.

GEO. W. GOETHALS,
Chairman.

Culebra, Nov. 22.

WEATHER CONDITIONS, CANAL ZONE, NOVEMBER, 1907.

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.			Mean relative humidity.	Wind.				Precipitation.		
		Mean.	Mean maximum.	Mean minimum.		Prevailing direction.	Av. hourly velocity in miles.	Maximum velocity in miles.	Total movement.	Number of rainy days.	Total.	Average since station established.
Cristobal.....	29.85	78	83	74	90	s.e.	8	25	5,569	28	15.37	20.98
Bas Obispo..	29.85	78	84	72	95	n.w.	4	36	2,600	22	9.85	10.78
Ancon.....	29.84	80	87	72	92	....	...	....	....	21	10.51	11.33
Naos.....	29.84	80	87	74	91	n.w.	7	34	5,006	19	4.75	7.17

CHURCH WORK ON THE ISTHMUS.

Outline of Religious Services Held in the Canal Zone.

Religious services are held regularly on Sundays at practically every town in the Canal Zone. The Isthmian Canal Commission maintains a corps of chaplains whose duties are to hold there services, to make daily visits to Commission hospitals and to perform such other duties connected with their calling as may be requested. There are at present eleven chaplains on duty, their names, location, and the religious services held by them are as follows:

Rev. Edward J. Cooper, rector of Christ Church, Protestant Episcopal, and resident chaplain, Colon.

Every Sunday, holy communion at 7.30 a. m.; morning prayer, litany and sermon, 10.30 a. m.; Sunday school, 3.30 p. m ; evensong and sermon, 7 15 p. m.

Week days, daily morning prayer at 7.30 a. m.; Wednesday, evensong at 7.15 p.m.; Fridays, morning prayer and litany. 7.30 a. m.; evensong, 7.15 p. m.

The Missions of the parish established at Mount Hope, Gorgona, Culebra and other towns on the Isthmus, some of which have lay readers in local charge, are visited by the rector at least once a month. He makes a daily visit to each ward in Colon hospital, and holds two services there every Sunday afternoon, one for white patients and one for colored people.

Rev. P. José Volk, rector of the Church of the Immaculate Conception, Roman Catholic, and resident chaplain, Colon.

Every Sunday mass, with preaching in Spanish, 7 a. m.; mass with preaching in English, 9 a. m.; Sunday school and benediction, 3 p. m., holy rosary, with preaching in English, and benediction at 7 p. m. At the chapel connected with the Public City School for Boys, taught by the Christain Brothers, and the chapel of the Public City School for Girls, taught by the Sisters of Charity, services are held. Father Volk also makes daily visits to all the wards of Colon hospital.

Rev. William Pearn, pastor of the Union Church, and resident chaplain, Cristobal.

Every Sunday services in the Commission chapel as follows: Sunday school, 9.30 a. m.; children's service and preaching, 10.30 a. m.; Christain Endeavor, 7 p. m.; preaching, 7.45 p. m. Devotional service every Wednesday at 7.30 p. m.

Mr. Pearn visits the hospital at Las Cascadas, and has helped to organize a Sunday school at that place which meets every Sunday at 2 p. m., and has preaching there on the evening of the second Sunday of each month.

Rev. E. G. Cooke, pastor of the Wesleyan Methodist (colored church). Services every Sunday morning and evening, and a weekly prayer meeting.

Rev. J. H. Sobey, Baptist clergyman and resident chaplain at Gatun. Sunday services in hall over the Isthmian Canal Commission hotel at 10.30 a. m., and 7.30 p.m.; Sunday school at 2.30 p. m., Mr. Higgins, superintendent.

Two services a week for colored people, on Sunday afternoon and Wednesday evenings. Regular visits are made by Mr. Sobey to the hospital and rest camps, and reading matter is distributed among the laborers.

Rev. J. L. Wise. Baptist clergyman and resident chaplain, Gorgona. Services as follows:

First Sunday in the month, Empire, 10.30 a. m., Gorgona, 7.45 p. m.

Second Sunday in the month, Cristobal, 10.30 a. m. and 7.30 p. m.

Third Sunday in the month, Ancon, 9.15 a. m.; Paraiso, 3.30 p. m.

Fourth Sunday in the month, Gorgona, 10.30 a. m.; Empire, 7.30 p. m.

Fifth Sunday in the month, Culebra, 10.30 a. m.; Gorgona. 7.45 p. m.

The Christain Endeavor society meets every Sunday evening, and a prayer meeting is held every Thursday at 7.30 p. m.

Rev. S. Moss Loveridge, Baptist clergyman and resident chaplain, Culebra.

Service in the Zone penitentiary every Sunday morning at 8.30.

Other Sunday services are: Commission chapel, Culebra, second and fourth Sundays, 10.30 a. m.; first and third Sundays, 8 p. m. In the Baptist church for colored people, Culebra, first, third and fifth Sundays, 11 a. m.; second and fourth Sundays, 6.30 p. m., and a service every Monday evening.

Services for colored people at Frijoles on the third Sunday of every month at 3 p. m., except when a month has five Sundays, in which case no service is held on the fourth Sunday, but takes place on the fifth Sunday at 11 a. m.

In addition to these visits there are services regularly held twice every Sunday and weekly prayer meeting at Culebra, Frijoles, Matachin and Las Cascadas by different preachers (mostly colored men) acting under Mr. Loveridge's direction. The Sunday school at Culebra, Mr. Edgar Soule, superintendent, is held every Sunday at 9.30, with an average attendance of about fifty.

Rev. John C. Elkins, presiding elder of the Methodist Episcopal church for the Canal Zone and Republic of Panama, and visiting chaplain, Panama, services: First and third Sundays, court house, Empire, 7.30 p. m.; second and fourth Sundays, Commission chapel, Culebra, 7.30 p. m.

As pastor of the Methodist Episcopal church in Panama, Mr. Elkins has charge of the construction of the new church and school building now being erected of cement blocks on the water front near the new Panamanian Government building. The American College of Panama, which has four American and Spanish teachers, will be placed in this building. When it is completed services will be held there twice every Sunday, in both English and Spanish. Sunday school is held at 2.30 p. m. and instruction is given in both English and Spanish, and a service in Spanish is held by Mr. Ports every Sunday at 7.30 p. m.

Rev. Daniel Quijano, priest in charge of the Sacred Heart chapel, Roman Catholic, in hospital grounds, and resident caplain, Ancon.

Mass every Sunday morning at 6 and 9.

Father Quijano spends several hours daily visiting the various wards of Ancon Hospital, which is the largest hospital on the Isthmus.

Rev. Georges Lariden, Roman Catholic priest and visting chaplain, Panama.

Mass every Sunday and Holy day at 9 a.m. in the Roman Catholic churches at Gorgona and Empire by father Lariden or one of his assistants. Father Lariden makes two visits a month, and more if necessary, to the leper colony established at Palo Seco on Panama bay, and makes daily visits to the Ancon and other hospitals as directed.

Rev. George O. Eskins, Rector of St. Paul's church, Protestant Episcopal, Panama.

Service every Sunday morning at 11; Sunday school at 3 p. m. and Evening Service at 7, and on Saints' days Holy Communion Service at either 5.30 or 8 a. m.

There is a Mission connected with this parish at Culebra, Las Cascadas and Bas Obispo. At each of these places a lay reader conducts a service every Sunday morning at 11, and at Culebra there is also one at 7 p. m. The rector visits each of these missions at least once a month. Since he has been at Panama he has baptised 355 persons and performed 82 marriage ceremonies.

M. Britton King, clergyman of the Wesleyan Methodist church and Superintendent of the work of that church on the Isthmus, and visiting Chaplain, Panama, holds services as follows:

First Sunday in the month at his chapel in Panama at 11 a. m. and 7.30 p. m.

Second Sunday in the month at Empire at 11 a. m., and Panama 7.30 p. m.

Third Sunday in the month, at Colon at 11 a. m. and 7 p m.

Fourth Sunday in the month, at Panama at 11 a. m. and 7 30 p. m., and on fifth Sunday, if any, services same as fourth Sunday. Rev. Mr. King's ministry is almost entirely among the colored people, and an article in regard to his work will appear in THE CANAL RECORD in the near future.

The Ven. Archdeacon Bryan, who has recently come to the Isthmus, will have charge of the Protestant Episcopal Church in this vicinity. He is resident chaplain at Ancon, and will hold service each Sunday in December as follows: Protestant Chapel, Ancon Hospital, 8.30 a. m.; Commission Chapel, Culebra, 11 a. m.; Kangaroo Hall, Empire, 3 p. m., and at Commission Chapel, Gorgona. 7.30 p. m.

The Roman Catholic church has been established on the Isthmus since its first discovery, and practically all the native population are of that faith. There are numerous churches in the city of Panama where mass is said every Sunday and the Bishop of the diocese resides there.

Episcopal Church Service.

Archdeacon Bryan will hold service in the Commission church at Culebra on Sunday, December 8, at 4.30 p. m.

Concert.

By the I. C. C. Band at Las Cascadas, C. Z. Sunday, December 8, at 2.30 p. m.:

PROGRAM:

1 March ....*To the Front*............Baines
2 Selection............. *Amorita* ....Czibulka
3 Intermezzo..........*Starland*...... ....O'Connor
4 Waltz..... ....*Dream of Heaven* .....Bauer
5 Cornet solo.........*Somewhere*...............Harris
CHAS. E. JENNINGS
6 Two-step.............*Honey Boy*.........Von Tilzer
7 Idyl...... ....*Fairy Tales*...... ...Eilenberg
8 Overture........ .....*Morning, Noon and Night*...... ....Suppe
9 Descriptive ....*The Cavalry Charge*.......... ..... Luders

Synopsis—Morning of the battle; infantry heard approaching with fifes and drums; cavalry in the distance, coming nearer and nearer until they charge upon the enemy; cavalry, infantry and artillery in the melée of the battle; defeat of the enemy, pursued by the cavalry in the distance.

10 March.................*Chateau Gontier*....Fischlin

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Hotel Tivoli, Sunday, December 15.

REPORT OF VISITING CONGRESSMEN.

Views of Mr. Tawney and His Associates.

In the New York *Herald* of November 21, there appears the following account of the return of the members of the Appropriations Committee of the House of Representatives from their recent visit to the Isthmus:

With enthusiastic predictions that the Panama Canal can be completed in five years at a cost of $1,000,000 less than the $32,000,000 sought, and asserting that liberal financial support will be forthcoming to this end, the members of the subcommittee of the Appropriations Committee of Congress, consisting of nine representatives, with James A. Tawney, of Minnesota, at the head, returned yesterday by the Colon, after six days spent on the Isthmus.

Every member of the body reached the city professing himself intensely pleased with the progress made on the great ditch, satisfied with the methods in vogue and pledging that a half decade will see the canal an accomplished fact.

Sanitary conditions are pronounced perfect, and the 36,000 workmen employed on the Cut, 6,000 of whom are Americans, are regarded as performing excellent service under a division of authority that is effective and time saving. All the information obtained, as the result of actual inspection of the Canal and hearings at Panama, Tivoli and Cristobal, will be presented in a formal report when Congress convenes in December.

MR. MADDEN ENTHUSIASTIC.

One of the most practical members of the Commission was Representative Martin B. Madden, of Chicago, his years in the contracting field having acquainted him fully with the demands of such a project as that under way down on the Isthmus. Mr. Madden, before leaving for the West said:

"Without a doubt the Panama Canal can be made an accomplished fact in five more years. Last month a total of 1,879,000 cubic yards of earth were excavated, and that notwithstanding that the rainy season was at its height. This speaks more than could any other statement of the progress that has been made possible and that is being continued. The men now in control are saying little, but they are performing remarkable work. The organization now in charge is one of the best. The people of the United States really can not appreciate the great progress that has been made in the recent months.

"The machinery left by the French company, all of which was of the best, is being rapidly rehabilitated. One of the great seagoing dredges—a monster piece of machinery which loads itself with the aid of two great pumps, is carried to sea and there is self-dumping—has been rebuilt at a cost of only $30,000. Last month that single piece of machinery excavated more than 143,000 cubic yards of earth. To have purchased a new machine outright would have cost $200,000. Hence, here alone there was netted a saving of $170,000. Another dredge of the same kind is being rapidly placed in shape and its operation will add materially to progress.

"We have taken over 2,265 of the houses which the French company abandoned, and these, too, have been put into excellent shape. Already 150 of the French company's locomotives, which it was believed in some quarters were fit only for the scrap heap, have been placed in excellent condition and are performing constant service. Almost 200 more of these locomotives merely need similar attention to place them in good running order. Why, those abandoned houses alone cost the French company between $5,000,000 and $6,000,000. The entire hospital accommodation left by the same concern has shown possibilities of rehabilitation, which will mean a tremendous saving. We ourselves have spent about $8,000,000 in building additional houses and buildings there.

WATER GOOD; WAGES HIGH.

"The water supply is splendid and the health of the workers is at the top notch. There are 36,000 men employed there now. Of this number 6,000 are Americans, while the others are Spaniards, Italians, Jamaicans and men brought there from Martinique. Wages, of course, are about 100 per cent higher there than in the United States. But the money is well spent and is bringing full measure of service in return. The climate is good, despite the rainy season. The members of the committee themselves gave ample proof of this during the six days they were holding sessions of inquiry or actively inspecting the work. It is a certainty, I believe, that with the support that should be accorded by Congress and with the present conditions continuing the Canal will be completed in five years."

Mr. Tawney, like every other member of the investigating body, was enthusiastic. He said:

"We were on the Isthmus about three days, holding formal sessions of inquiry. We had the heads of departments before us, including every official actively in charge of the work. We ascertained in detail the exact methods in use, the exact volume of work accomplished and just where expenditures were being made and information as to estimates believed necessary to carry on the work with all possible speed. We were more than satisfied with the progress made. Organization is proving its effectiveness more and more each day."

Every member of the body united in the statement that he will endeavor to see that no financial weights are tied on the task which might cause work to drag. The subcommittee was named chiefly at the instance of Mr. Tawney, of the Appropriations Committee, who visited the Canal Zone last March.

A special dispatch from Washington to the New Orleans *Times-Democrat*, dated November 21, says:

"The Panama Canal will be finished in 1914; work is progressing on the Isthmus just as fast as the best friends of the administration could wish, and when the United States took over the ditch begun by the French we got the biggest bargain of the century."

This, in brief, is the glowing report brought to President Roosevelt this morning by Representative Taylor of Alabama.

Mr. Taylor has just come back from the Canal Zone, where he made a close examination of the great enterprise.

"The work done by the French was worth, even according to our estimate of value, $36,000,000," said Mr. Taylor.

"We certainly got one of the biggest bargains in history when we took over the Canal from the French. When the great lake is finished that is to be created between the Culebra Cut and Gatun dam it will be large enough to accommodate all the navies afloat, and I predict will be one of if not the largest dry docking rendezvous in the world.'

Personal.

Capt. George M. Hoffman, of the Corps of Engineers, U. S. Army, has been detailed for duty on the Isthmus, and will enter soon upon his work as assistant to Maj. Jadwin, on the Chagres Division. He is a graduate of West Point, in the class of 1896, and was Maj. Jadwin's assistant when the latter was on duty at Galveston, Tex., previous to coming to the Isthmus. Recently Captain Hoffman has been on duty at Vicksburg, Miss.

Mr. P. B. Greegor, boxing instructor of the Y. M. C. A., left for the States on the *Dunottar Castle*, November 29.

University Club Ladies' Night.

The University Club has arranged for a Ladies' Night, on Saturday evening, December 7, when it is hoped there will be a large attendance of members and ladies invited by them. A program of entertainment has been prepared. There will be a special train out from Panama, after 11.30, provided a sufficient number of members from the Line signify their intention to be present

Notification should be sent to the secretary immediately if dinners are desired on arrival of afternoon train.

New Year's Day Athletic Meet.

An open letter to the managers of the various athletic organizations and baseball clubs of the Canal Zone.

The first annual New Year's Day athletic meet will be held at the Ancon Athletic Park on January 1, 1908. Your athletic team is cordially invited to co-operate with us in making this meet a success.

Owing to the large number of entries expected, no individual entries will be accepted; so please notify your members that they are expected to enter in the clubs' name. Gold, silver and bronze medals will be given to the winners of first, second and third places in each event, and a suitable trophy will also be given to the team scoring the greatest number of points. Points will be scored as follows: 5 points for first place, 3 for second and 1 for third place.

An entrance fee of 50 cents for the first event and 25 cents for each succeeding event will be charged.

Entries will close with Louis F. La Rose, Gorgona Y. M. C. A., on Tuesday, December 24. All contestants must be paid up members of the club they represent.

The events will be as follows: 100, 220, 440 and 880 yards run, obstacle race, one mile relay race, four men, each man to run 440 yards; field events as follows: pole-vault, 12 pounds shot-put, run high jump, run broad jump, one event for the Marine Athletic Association, to be selected later, and two events for members of organized baseball clubs only as follows: baseball throw for distance, and circling the bases for time.

For further particulars and entry blanks write to L. F. La Rose, Gorgona.

(Sgd.) M. J STICKLE,
R. J. GOODMAN,
L. F. LA ROSE,
Committee in charge.

Gorgona, C. Z., Nov. 29.

RECORD OF EXCAVATION.

MONTHLY TOTALS SINCE AMERICAN OCCUPATION.

BY STEAM SHOVELS.

CULEBRA DIVISION.

Months	CUBIC YARDS, PLACE MEASUREMENT.			
	1904	1905	1906	1907
January		70,650	120,990	566,750
February		75,200	168,410	639,112
March		132,840	239,178	815,270
April		126,749	213,177	879,527
May	27,556	75,935	196,209	690,365
June	32,551	76,905	212,623	624,586
July	31,599	78,570	159,789	770,570
August	35,056	49,210	244,823	786,866
September	25,220	44,085	291,452	753,468
October	19,695	52,940	327,009	834,499
November	28,860	60,540	221,642	790,632
December	42,935	70,630	307,689	
Totals	243,472	914,254	2,702,991	8,151,645

Total, 1904 .... 243,472 cubic yards
Total, 1905 .... 914,254 cubic yards
Total, 1906 .... 2,702,991 cubic yards
Total, 1907 (eleven months only) .... 8,151,645 cubic yards

Grand total to Dec. 1, 1907 .... 12,012,362 cubic yards

There were also removed from the Chagres Division in August, September, October and November, 94,117 cubic yards, all of which were from the Canal prism.

GATUN.

Locks, Dams and Spillways.

Months	CUBIC YARDS, PLACE MEASUREMENT.			
	1906		1907	
	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside of Prism
January			47,539	
February			70,177	
March			100,151	
April			103,459	
May			70,528	
June			71,181	3,832
July			59,537	14,6 8
August			78,357	26,866
September			87,423	36,315
October	3,055		136,777	40,236
November	11,517		121,635	40,987
December	12,056			
Totals	26,628		946,764	162,864

Total to Dec. 1, 1907—1,136,256 cubic yards.

LA BOCA.

Locks, Dams and Spillways.

Months	CUBIC YARDS, PLACE MEASUREMENT.			
	1906		1907	
	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside of Canal Prism
January				
February				
March			538	3,367
April				1,756
May				762
June				4,907
July			4,725	9,047
August			6,874	8,991
September			5,431	7,375
October			7,108	112
November			8,190	
December				
Totals			32,836	36,317

Total to Dec. 1, 1907—69,183 cubic yards.

Grand total by steam shovels to Dec. 1, 1907—13,437,824 cubic yards

BY DREDGES.

COLON.

Months	CUBIC YARDS, PLACE MEASUREMENT.					
	1905		1906		1907	
	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism
January				90,700		111,100
February				10 ,500		110,002
March				126,650		84,145
April				87,200		69,889
May } June }		60,700		64,875		133,847
June				73,500	17,000	107,118
July		58,050		69,000	*104,322	5,600
August		53,183		54,000	189,170	5,127
September		48,837		1 3,540	403,842	17,000
October		48,800		111,020	409,632	16,650
November		38,000		63,260	417,297	10,2 5
December		92,250		58,400		
Totals		399,820		1,027,645	1,541, 63	670,753

Total to Dec. 1, 1907—3,639,481 cubic yards.

* On this division in July, August, September, October and November there was also removed from the prism 125,906 cubic yards in the Colon Division by steam shovels.

LA BOCA.

Months	CUBIC YARDS, PLACE MEASUREMENT.					
	1905		1906		1907	
	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism
January				95,940		9 ,710
February				95,940		93,480
March				116,820		92,319
April				110,700		104,855
May				112,340		122,157
June		50,676		62,697	64,352	69,223
July		41,533		98,400	108,338	
August		54,530		111,930	168,284	
September		114,308		105,780	144,625	9,350
October		81,836		97,170	357,122	
November		71,176		92,988	365,423	
December		71,094		90,528		
Total		485,153		1,191,233	1,208,144	586,094

Total to Dec. 1, 1907—3,470,624 cubic yards.
Grand total by dredges to Dec. 1, 1907—7,110,105 cubic yards.
Grand total by steam shovels and dredges to Dec. 1, 1907—20,547,929 cubic yards.

FRENCH AND AMERICAN RECORDS.

Highest elevation on new center line of Canal before excavation began by the French:	FEET
At Culebra	312
At Bas Obispo	233
Greatest depth of excavation by the French:	
On I.C.C. Canal axis at Culebra	161
On I.C.C. Canal axis at Bas Obispo	148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-feet level Canal:	
At Culebra—at same point as before	111
At barrier on Contractor's Hill ......about	140
At Bas Obispo	45
Amount excavated under American control:	CUBIC YARDS
In Culebra Division (canal prism) to December 1, 1907	12,012,362
Total excavation at all points under American control to Dec 1, 1907	20,547,929
Total excavation by the French at all points and including diversion channel ......about	70,600,006
Total estimated excavation required April 1, 1907 for an 85-feet level canal:	
In Canal prism	101,050,000
On lock sites	7,965,000
For regulating work and diversion channel	2,150,000
Dredging in old Channel, Cristobal to Gatun, to open construction channel; and at Panama, to keep channel open to La Boca	3,350,000
Total	114,515,000

SOCIAL LIFE OF THE ZONE.

Patriotic Celebrations of the National Holiday.

The social activities of the past week focussed around the national holiday on Thursday and the Americans in the Zone put forth their best efforts to make the occasion memorable in its history.

The Tivoli club gave a dance and banquet on Thanksgiving eve which was attended by about two hundred and fifty guests. Dancing was begun at the usual hour and supper was served at about eleven. Dancing was renewed after the supper and continued until a late hour.

The Pedro Miguel social club gave an entertainment November 21, in the hall of the Commission hotel, about one hundred and fifty guests being present, including a number who came from Corozal and Paraiso by special train. The hall was attractively decorated with festoons, flags, palms and tropical foliage. During the intermission supper was served in the mess hall below. A cake-walk was listed but owing to non-entries, a prize waltz was substituted, the prize, a large cake furnished by Mrs. Elliott L. Henderson, being won by Mrs. Tobey and Mr. Malsby.

The Paraiso social club gave a dance Thanksgiving night, special trains being run from Ancon and other nearby stations.

The women of the Culebra club entertained the bachelors of the community November 27 with a bowling contest played by opposing teams of Culebra. Several games of basket ball were also played. A musical program was given.

Entertainments were also given at Gorgona, Empire and other stations along the line.

The Woman's club at Empire has elected Mrs. George C. Burnett member of the advisory board of the Zone Federation. The club has a number of unique entertainments arranged for December. The departmental work will be enlarged, special features being taken up. The current events discussion are a feature of the club's work.

The Gatun club is completing arrangements for a fair to be held in December.

A special meeting of the officers of the Ancon club was held November 23, to decide the question of forming an art society under the auspices of the club. It was unanimously voted to form the society and it will be in operation at once. The club holds its regular meeting December 4. The program under the educational department, will consist of a talk on Home Nursing by Miss Murdock, assistant supervising nurse at the Ancon hospital.

Culebra Lodge, K. of P., gave a Thanksgiving ball at the Commission club house on Saturday evening before Thanksgiving. Many guests from Empire and other points on the Zone were present. Refreshments were served informally. The music was excellent, and over two hundred enjoyed the dancing. The following committee had full charge of the arrangements: Messrs. Pullen, Cameron, Roache, Catto and Schumacher.

A dance was given by the American Social Club at Las Cascadas on the evening of November 30, which was well attended. The Marine band at Camp Elliott furnished the music. Refreshments were served.

The club has a piano on the way from New York. This, with other contemplated improvements, will assist the club in filling a void in the social side of life at Las Cascadas.

Redmen Celebrate Thanksgiving Day.

The Canal Record:

Incas Tribe No. 6, gave a grand ball and banquet in their wigwam at Gatun on Thankgiving eve. Many Redmen and "Palefaces" from other points along the line were present. The wigwam was tastefully decosated and several children attired in Indian costume attracted much attention.

The thoughtful "Incas" had made preparations to "sleep" a large number of the guests; but, "ugh," who thought of sleep. The band played on and the merry whirl was kept up until near the dawn of day.

Among the guests were Sachem Dewey and a party of San Blas Tribe No. 2, of Cristobal. Col. B. B. Duncan, Deputy Great Incohonee for the Reservation of the Canal Zone, who is always on the trail, was also present. He was highly pleased with the success of the entertainment and predicts great things for the Redmen in his Reservation. On Washington's Birthday he expects to bring out the full force of Redmen in a grand parade at Cristobal, followed by a grand ball and banquet.

A. M. Warner,
S. S., Caribb Tribe No. 7.

Las Cascadas, C. Z., Dec. 1.

Sunday Concerts at Hotel Tivoli.

Arrangements have been completed to have band concerts regularly every Sunday afternoon in front of the Hotel Tivoli. The first of these was given on Sunday last by the Camp Elliott Volunteer band, through the courtesy of Major Russell. The one on Sunday, December 8, at 3 p. m., will be given by the Canal Zone band, under the direction of Mr. W. H. Storm, when the following program will be rendered:

1	March	*Dixie Girl*	Lampe
2	Intermezzo	*Garden of Roses*	Pratt
3	Overture	*Nicodemus*	Gruenwald
4	Serenade	*Angelic Choir*	Myers
5	Tuba solo		Selected
		MR. JACKSON AND BAND.	
6	Waltz	*Wilhelmina*	Hall
7	March	*The Famous 22d Regiment*	Gilmore
8	Selection	*Army Chaplain*	Millocker
9	Serenade	*Moonlight*	Moret
10	Baritone solo	*Fascination*	Barnhouse
		MR THOMPSON AND BAND.	
11	Chilean Dance	*Mañana*	Missud
12	March	*Commonwealth*	Hall

Theatricals at Camp Elliott.

On the evening of Thanksgiving Day, the enlisted men of Camp Elliott gave a minstrel and vaudeville show in one of the reserved buildings of the Camp, which they had converted into a theatre for the occasion, and it proved a great success. The interior of the building was decorated with bunting and palms. During the minstrel show, Privates Powers and Cain sang popular songs, and First Sergeant Johnson, Corporal Simcox, Private Marvin and Private Wermeldorff, as end men, kept the audience in a roar of laughter by their jokes on individuals of the Camp. The special features consisted of fencing, tumbling, neck-pulling contest, and character sketches. Mr. Ganet, champion clog dancer, and lately of the Hippodrome, volunteered his services, and the audience showed their appreciation to the fullest. First Sergeant Brong and his Ragged Cadets were the recipients of a great deal of applause. During the evening the band was in attendance, under the leadership of Private Arnold. The program was under the general direction of the following:

COMMITTEE ON ARRANGEMENT.

Quartermaster Sergeant P. J. Grealy, First Sergeant H. Johnson, Gun Sergeant Eugene E. Brong, Sergeants Thomas Joyce and Frank Stewart, Corporal Harry E. Simcox, Band master Ernest Arnold, Scene Artist R. W. Perry.

EXECUTIVE STAFF.

Business manager, Fred Israel; musical director, E. Arnold; stage manager, R. W. Perry; electrician, Si Adams; "props," Bumps Kurner; carpenter, Chocolate Creams; wardrobe mistress, Lowenthal.

Stage scenery and effects designed and executed by R. W. Perry.

Costumes by S. Lowenthal and Czyzniewski.

On the following morning the Commanding Officer published on order extending the thanks of the Command to those in charge of the entertainment.

A Masonic Smoker.

The Canal Record:

The Culebra Sojourners' Club will give a smoker at their next stated meeting Friday, December 13, in Fraternal Hall, Culebra.

All Master Masons from the Line are earnestly requested to be present, or a representative committee from each town, to discuss what shall be done St. John's Day, December 27.

We have a generous offer and desire to bring it before the meeting for open discussion.

Through the courtesy of Mr. Jones, Superintendent of Transportation, a labor train will return after the meeting to Empire.

Geo. W. Strong,
Secretary.

Culebra, C. Z., Nov. 29.

Strangers Club.

The Canal Record:

The Strangers Club of Colon has secured the property on the southeast corner of Front and Eight streets for club purposes. An additional story is to be placed on the present building, extending from Front street to Bottle Alley, which will be used solely by the club. Wide verandas will surround the premises on three sides and the interior will be constructed according to the club's plans and made especially for club purposes. The club rooms will receive light and air from four sides and will be furnished and arranged with due regard to comfort. There will be a large ballroom and all the appointments of a first-class club.

This location commands a fine view of Limon bay which members and guests can not fail to enjoy. As the name indicates, the club is for strangers on the Isthmus.

The large foreign population at this end of the Zone is now without a meeting place, and there being no rival organizations and a sufficient membership assured, the club will be a strong one.

In its reading room will be found the leading papers of the several countries of its members, as well as the periodicals of the world. Special attention will be given to the comforts of its members in every way.

Colon, Nov. 7. L. Heuer,
Secretary.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

CRISTOBAL.

The educational classes in business arithmetic and English grammar and composition are being conducted to meet the needs of the men who desire to take the Civil Service examination for the positions of clerk, stenographer, and bookkeeper to be held December 15th. Special coaching will be given immediately preceding the examination.

On Thanksgiving Day A. L. Fessler and W. L. Walsh walked from ocean to ocean, starting at high tide at Cristobal—11.15 p. m.—and arrived on the Pacific side at 4.45 the next afternoon, making the distance in seventeen and a half hours. In estimating the time it should be remembered that practically the entire distance was walked on railroad ties.

The Sunday Club announces the following speakers: Judge H. A. Gudger, December 8; Major W. L. Sibert, December 15 (on the Gatun Locks and Dams); Mr. H. J. Slifer, General Manager Panama railroad, December 22, when a special musical program will be given by the Ernest Gamble Concert Company; New Year's program, December 29.

GORGONA.

The Y. M. C. A. announces the following special events, beginning with Sunday, December 1:

December 1—Address by Mrs. J. H. Sobey, twenty years' resident of the Western tropics. Subject, "Story of the Conflict and Struggles Involving the Freedom of the West Indian Negroes."

December 8—Address by Mr. H. L. Stoutz, Examiner of Accounts. Subject, "The Keyword to Success."

December 15—Address by Mr. Harry D. Reed, Secretary of the Department of Civil Administration. Subject, "Municipal Government."

December 22—Address by Archdeacon Bryan. Subject, "Christmas Time and What It Means to Me."

December 29—Address by Rev. J. H. Sobey, chaplain at Gatun. Subject, "The Old and the New Year."

Thanksgiving Day at Gorgona was celebrated as follows: 9 a. m.—Scrub game tournaments. 2.30 p. m.—The Raymond and his Novelty Troup of ten people. 8.15 p. m.—The La Barge Lyceum entertainment Company of New York. Over 700 persons visited the building during the day.

An exciting bowling match was played at Gorgona on Saturday evening, November 30. The local team defeated the Culebra team two out of three games. A new individul record was created by Chelf, of the Gorgona team, who rolled 189, 225 and 182, giving him a record of 198⅔ for the three games. The team record for three consecutive games, held by Culebra, was also broken by the Gorgona team, with a team average of 859⅔ pins. The score was: Gorgona, 830, 896 and 853; Culebra, 858, 812 and 824.

EMPIRE.

Last week the members and friends enjoyed two entertainments; the first on Tuesday evening by the La Barge Concert Company and the second on Thursday evening by the Raymond Company. The next concert will be given by the Ernest Gamble Concert Company which will arrive about December 15.

On Sunday evening, December 8, a special service will be held in the Y. M. C. A. hall for both men and women. Judge Thomas E. Brown will deliver the address. The members of the Woman's club are working up a chorus which, together with soloists, will render music for the occasion.

Last Sunday the first Bible class was organized at the Empire Y. M. C. A. with a good number enrolled.

The Sunday club has secured Archdeacon Bryan for an address at the men's meeting on Sunday afternoon, December 15, at 3 o'clock.

CULEBRA.

Sunday, November 24 Judge Brown delivered an address to the men and women of Culebra on the topic of "What a Man is Worth."

Thanksgiving eve the Woman's club tendered a reception to the men of Culebra. The home-made cakes furnished by the ladies were greatly appreciated. The musical program under the direction of Mrs. Murray included instrumental and vocal music, a monologue and a Thanksgiving address. Bowling and basket ball were special features of the evening and were witnessed by a large crowd.

Considerable enthusiasm is being shown in preparation for the field and track meet at Ancon Park New Year's morning. Culebra will be represented in all the events

The Glee Club will give a concert Friday evening, December 6 The program consisting of four numbers by the club, two quartette selections, vocal solos by Mrs. Adolph Faure, and Dr. Sumner Coolidge, instrumental solos by Chas. E. Jennings and Chas. A. Wolf, jr.; violin and piano duet by J. W. Talty and Mrs C. O. Carlson and readings by Miss Faxon of Gorgona.

Thursday night, December 19—The Ernest Gamble Concert Company from the States will give an entertainment.

Christmas Eve, December 24—The Sunday school and the Y. M. C. A. will give an entertainment to all children of Culebra. A Christmas tree is being arranged for, and a stocking full of good things for each child.

Basket ball games have been arranged with the Gorgona team for December 14 at Culebra and December 23 at Gorgona, and other games are under consideration.

The Sunday afternoon meetings for the month of December are open for both men and women.

Annual and Sick Leave.

THE CANAL RECORD:

I wish you would kindly advise me in your next issue as to whether or not, under the regulations of the Isthmian Canal Commission and Panama railroad, I am entitled to vacation of six weeks annually and two and one-half days monthly sick leave. I am an *American*, but was not employed in the States, and therefore am not a provisional appointee. Nevertheless, I think that as an American I am entitled to all the privileges due as such, including the privileges mentioned above. Please be good enough to advise me on this in your next issue of THE CANAL RECORD and very much oblige.

C. F. COTTON.

Cristobal, C. Z., Nov. 8.

[The rules in effect at the present time provide that an employe whose salary is fixed on an annual or monthly basis may be granted, in the discretion of the head of the department in which employed, with the approval of the Chairman, not to exceed six weeks leave of absence, with pay, for each twelve months' service. Such leave is confined to employes not accustomed to work in a tropical country and must be taken in a country affording the necessary change of climate.

The rules further provide that all regular employes above the grade of laborer, unaccustomed to a tropical country, may be granted fifteen days sick leave, with pay, for each six months' service, on the certificate of an authorized physician in the service of the Department of Health of the Isthmian Canal Commission, that the employe has been unable to work on account of illness contracted through no fault of his own or because of injury.

The above provisions apply also to employes of the Panama railroad, and it will be seen that they do not exclude Americans employed on the Isthmus except under the conditions mentioned.]

A Surprised Contractor.

TO THE EDITOR OF THE HERALD:

I read with surprise your published account of the amount of excavation done on the Panama Canal last month as given out by the Chief Engineer. To say that 1,900,000 yards of earth and rock were excavated in one month is a good tale to tell to the marines.

Every contractor who read the statement I am sure had a good laugh over it.

CONTRACTOR.

New York, Nov. 8, 1907.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending November 29:

FRESH MEATS.		Price. cts.
Beef, sirloin, roast	*per lb...*	*22*
Beef, rump, roast	*do*	*18*
Beef, Porterhouse	*do*	*25*
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	*16*
Beef, rib-roast, second-cut	*do*	*14*
Beef, chuck-roast	*do*	*11*
Beef, soup	*do*	*6*
Beef, stew	*do*	*8*
Beef, corned	*do*	*10, 12, 14*
Beef, corned, sirloin butts, all lean	*do*	*16*
Beef, corned, fancy boneless brisket	*do*	*18*
Steaks, sirloin	*do*	*22*
Steaks, Porterhouse	*do*	*25*
Steaks, rump	*do*	*18*
Steaks, tenderloin	*do*	*20*
Steaks, round	*do*	*12½*
Veal, cutlets	*do*	*21*
Veal, short-cut chops	*do*	*20*
Veal, loin	*do*	*13*
Veal, entire forequarters	*do*	*9*
Veal, for stewing	*do*	*9*
Mutton, entire forequarters,	*do*	*9*
Mutton, short-cut chops	*do*	*18*
Mutton, leg	*do*	*14*
Lamb, for stewing	*do*	*10*
Lamb, entire forequarters	*do*	*10*
Lamb, short-cut chops	*per lb...*	*22*
Lamb, legs	*do*	*18*
Pork, cuts	*do*	*20*
MISCELLANEOUS.		
Livers, beef	*per lb...*	*9*
Livers, calf	*each.*	*55*
Sausage, pork	*per lb...*	*16*
Sausage, Frankfurt	*do*	*16*
Sausage, Bologna	*do*	*15*
Sausage, Lieberwurst	*do*	*15*
Sweet bread, veal	*each...*	*$1.20*
Sweet bread, beef	*per lb...*	*25*
Tripe, pickled, Honeycomb..	*do*	*12*
Oysters, ½-gallon kegs	*each...*	*70*
Oysters, 1-quart tins	*do*	*45*
Pickled pig's feet	*per lb...*	*6*
Tongue beef, 4 lbs. each	*do*	*13*
Tongue pig	*do*	*12*
POULTRY AND GAME.		
Chickens, dressed (milk-fed).	*each...*	*†$1.20*
Fowls	*do*	*75*
Ducks, fatted	*do*	*90*
Turkeys	*per lb...*	*25*
Broilers, frys (chicken)	*each...*	*†75*
Squabs	*do*	*30*
Ducklings	*do*	*85*
Eggs, fresh	*per dozen*	*40*
Geese (about 10-lb)	*each*	*$2.00*
CURED MEATS AND LARD.		
Bacon, strips per lb	*per lb...*	*23*
Bacon, English breakfast, slic'd	*do*	*§26*
Ham, sugar-cured, sliced	*do*	*§25*
Ham, one-half (for boiling)..	*do*	*§20*
Ham, Yorkshire (imported).	*do*	*25*
Hams, Westphalia	*do*	*45*
DAIRY PRODUCTS.		
Butter, prints, prime quality.	*per lb...*	*38*
Cheese, Camenbert	*each*	*28*
Cheese, Phila		*22*
Cheese, Neufchatel	*do*	*6*
Cheese, Roquefort.	*per lb.*	*45*
Cheese, Young America	*do*	*22*
Cheese, Swiss	*per lb...*	*30*
Cheese, Gouda	*do*	*30*
Cheese, Edam	*each...*	*90*
FRUITS AND VEGETABLES		
Apples	*per lb...*	*4½*
Limes	*per hun...*	*30*
Bananas	*per dozen*	*5*
Grapes	*per lb...*	*10*
Pears	*do*	*12*
Grape Fruit	*each...*	*3*
Cranberries	*per lb*	*12*
Onions, young	*do*	*12*
Squash, Hubbard	*do*	*5*
Celery	*bunch*	*18*
Cucumbers	*per lb...*	*14*
White potatoes	*do*	*2½*
Cabbage	*do*	*1½*
Turnips	*do*	*3*
Lettuce	*do*	*†12*
Onions	*do*	*2*
Cauliflowers	*do*	*8*
Sauer kraut	*do*	*3½*
Yams	*do*	*2½*
Sweet Potatoes, American..	*do*	*2*

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* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from Commissaries.*

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun
Sydney B. Williamson, Division Engineer, La Boca.
E. A. LeMay, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
E. H. Hale, Chief Clerk.
Geo. L. Campen, Water Commissioner, Ancon.
Inocencio Galindo, Legal Adviser, Ancon
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon
Translators: F. H. Sheibley and Charles M. Brown.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
J. M. Fernandez, District Judge, La Boca.
R. B. Myers, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry C. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj John L. Phillips, U. S A., Superintendent, Ancon Hospital, Ancon
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Ancon; C. C. McColley, Empire; Chas L. Parker, Gorgona; Edgar Lowe, Cristobal, division superintendents.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mubry, Chief Clerk.

Panama Railroad Company.

H. J. Sliter, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

DIPLOMATIC CORPS.

Ministers Residing at Panama.

H. G. Squiers, United States,
Claud Coventry Mallet, Great Britain.
Antonio da Fontaura Xavier, Brazil.
A. J. de Amarol Murtinho, Secretary, Brazilian Legation.

Chargé d'Affaires.

Henry Moet, France.
M Leon Huttinot, ad interim, France.
Federico Alfonso Pezet, Peru
Alberto Bresani Kossel, Attache.
Federico Boyd, Nicaragua.
E. Pollet, residing in Guatemala, Belguim.
J. H. Reus, residing in Caracas, Netherlands

Owing to the large amount of freight for Central American ports that has accumulated at La Boca, the Pacific Mail Company has chartered two German steamships to relieve the congestion. The steamer *Neko* sailed from La Boca on November 27 with 2,800 tons of miscellaneous cargo for Central American ports, and the steamer *Itauri* will sail about December 5 with an additional 2,800 tons for the same destination

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Nov.*	*30*
Atrato	*R.M.*	*Saturday*	*Nov.*	*30*
Advance	*P.RR.*	*Monday*	*Dec.*	*2*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*7*
Panama	*P.RR.*	*Monday*	*Dec.*	*9*
Dunottar Castle	*P.RR.*	*Saturday*	*Dec.*	*14*
Prinz Sigismund	*H.-A.*	*Saturday*	*Dec.*	*14*
Trent	*R.M.*	*Saturday*	*Dec.*	*14*
Finance	*P.RR.*	*Thursday*	*Dec.*	*19*
Altai	*H.-A.*	*Saturday*	*Dec.*	*21*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*24*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec.*	*28*
La Plata	*R.M.*	*Saturday*	*Dec.*	*28*
Advance	*P.RR.*	*Monday*	*Dec.*	*30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Finance	*P.RR.*	*Wednesday*	*Dec.*	*4*
Trent	*R.M.*	*Wednesday*	*Dec.*	*4*
Altai	*H.-A.*	*Saturday*	*Dec.*	*7*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*10*
Prinz Joachim	*H.-A.*	*Tuesday*	*Dec.*	*10*
Advance	*P.RR.*	*Sunday*	*Dec.*	*15*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Dec.*	*17*
La Plata	*R.M.*	*Wednesday*	*Dec.*	*18*
Panama	*P.RR.*	*Saturday*	*Dec.*	*21*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*21*
Prinz August Wilhelm	*H.-A.*	*Tuesday*	*Dec.*	*24*
Dunottar Castle	*P.RR.*	*Thursday*	*Dec.*	*26*
Finance	*P.RR.*	*Tuesday*	*Dec.*	*31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*31*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Atrato	*R.M.*	*Tuesday*	*Dec.*	*10*
Trent	*R.M.*	*Tuesday*	*Dec.*	*24*

The Panama railroad steamships sail at 3 p.m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon about December 9 and 21.

The steamship *Aureola* sailed from Thompson's Point, N. J., on November 22, for Cristobal with 1,000,000 pounds of explosives, and 900 tons of dredge material.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Dec. 4, 1907.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Ackins, Harry
Adams, Chas.
Allen, John D.
Buckley, Horatio
Cameron, C. C.
Cameron, Donald N.
Canon, J. R.
Carroll, W. H.
Christy, Chas.
Conrad, Jack
Davidson, Miss Rebecca
Dellow, A.
Dunlap, Ed. L. jr.
Ellis, Gilbert
Flowers, J. L.
Furtardo, Joseph O.
Garske, Leonard
Goodrich, Geo. F.
Granger, Rene
Greene, John
Hall, Quincy A.
Hany, I B.
Hicks, John M.
Kell, Bud T.
Kralee, W B.
Lathrop, Claude C.
Leonard, Mrs. Nicholas
Lockhart, L. H.
Loudon, J. G.
Lowe, Wm E. Mrs.
McCourt, Jno. S.
McMillan, Jno. J.
Mason, Frank A.
Moore, Wallace A.
Muhlherr, Herman
Ratcliff, Douglas S.
Smith, Mrs. Rich. C.
Starks, James
Taylor, Percy T.
Thayer, Ira K. Mrs.
Thomson, E. C.
Weigle, Wm E.
Wetzler, Peter
White, H. J.
Wobler, Fred
Yeagley, Jas. G.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, DECEMBER 11, 1907. No. 15.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

Canal Force Full.

A few days ago the Chairman of the Isthmian Canal Commission sent the following message to the Washington office of the Commission: "Discourage vigorously any applicants from working their way to the Isthmus without appointment. All positions filled and no increase contemplated. Unemployed men without funds source of embarrassment." Applications for work on the Isthmus are received at the Washington office at the rate of 300 a day, an increase of about 33 per cent during the last month. This is due, it is thought in Washington, to the curtailing of various enterprises in the United States, and to the more settled, comfortable, and healthful conditions which now obtain on the Isthmus.

Some Comparative Figures.

The average city block is about 350 feet square. The excavation from the Canal Zone during the month of November would cover ten city blocks to a height of 40 feet.

The Pyramid of Cheops, the largest of the Egyptian pyramids, is 750 feet square at the base and 451 feet in height. It is said to have taken the services of 100,000 men 10 years to build a road from the quarry to the pyramid, and the same number of men 20 years to erect the pyramid. The Canal Commission is moving an amount of material equal to that contained in this pyramid every fifty working days, and by the end of the year 1908 it will probably accomplish the same feat in a month.

The Suez Canal, under the original plan, was begun in 1859 and completed in 1869. At the present rate of excavation, the Isthmian Canal Commission could build the Suez Canal in 3.8 years.

The Manchester Ship Canal, length 35½ miles, connecting Manchester, England, with the seaport of Liverpool, is one of the large ship canals of the world. The forces on the Canal Zone are moving an amount of material equal to the excavation of this canal, at present rates, every 25 months.

At the present rate of excavation, the Isthmian Canal Commission would build Kaiser Wilhelm's Kiel Canal, 61 miles long, in a little over 5 years.

November Revenues.

The report of the Collector of Revenues for the month of November, 1907, shows a steady increase in business. There were 12,608 money orders issued during the month, amounting to $381,561.06, an increase of more than $29,500 over any previous month.

The largest amount of orders were issued at Empire, aggregating $57,704.53; the next largest was at Gorgona, $56,564.09; Cristobal was third with $52,314.13, and Culebra fourth with $43,346.05.

Postage sales for the month of November amounted to $5,824.02, and other collections for the month were as follows: land and building rent, $1,156.40; miscellaneous bills, $1,559.14; internal revenue (tax on distillation) $259.50; and for the administrative districts of Ancon, Cristobal, Empire and Gorgona, $4,743.54. Fines and costs for the districts of Ancon, Cristobal, Empire and Gorgona amounted to $1,996.15

Dredging Records.

The total output of the Colon and La Boca dredging divisions for the month of November was 782,720 cubic yards. The total amount of material taken from the Canal prism on the Culebra Division by steam shovels was 778,860 cubic yards. This shows an excess of nearly 4,000 cubic yards in favor of the dredging divisions. This is possibly the first time since American occupancy that the dredging has exceeded the steam shovel output of the Culebra Division.

The maximum daily output by the three dredges on the La Boca Dredging Division during the month of November, 1907, scow measurement, was made on dates given below:

November 22, dredge A2, 6,907 cubic yards; November 25, dredge 14, 7,556 cubic yards; November 1, 13, 19, dipper dredge, 4,456 cubic yards, and the maximum daily output for the week ending December 7 was—December 4, dredge A2, 6,849 cubic yards; December 5, dredge 14, 7,231 cubic yards; December 6, dipper dredge, 3,920 cubic yards.

Stone Channeling Machines.

The Isthmian Canal Commission has purchased twenty-four Sullivan stone channeling machines of the largest size, driven by compressed air, with which the lock walls and portions of the Canal are to be channeled. Two are now in use at Bas Obispo, several others will be employed at Gatun and Pedro Miguel, and the rest will be employed in Culebra Cut. These machines cut exactly to the line as surveyed, making subsequent filling or trimming unnecessary. They do away with blasting, which shatters the surface of the rock and often makes necessary the building of retaining walls to prevent rock falls or slips. They will leave a smooth surface on the walls of the Canal, so that if a vessel strikes at an angle its hull will not be injured as would be the case were the rock to have a rough surface.

Highest November Shovel Records.

The records of the highest steam shovel in each class, in each of the four construction districts of the Culebra Division, with the number of the shovel, for the month of November, 1907, consisting of 24 working days, are as follows:

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
BAS OBISPO DISTRICT.			
95-ton 228..	2,624	23,610	26,234
70-ton 111..	6,828	10,243	17,071
EMPIRE DISTRICT.			
95-ton 225..	10,685	24,933	35,618
70-ton none			
CULEBRA DISTRICT.			
95-ton 222..	....	30,814	30,814
70-ton 122..	....	24,922	24,922
PEDRO MIGUEL DISTRICT.			
95-ton 209..	4,510	27,706	32,216
70-ton 110..	....	11,480	11,480

Highest Daily Shovel Records.

The subjoined table gives the highest daily records of steam shovels, in the Department of Excavation and Dredging, from November 9 to 30, inclusive:

Shovel No.	Date.	Location.	Amt. of material removed (cubic yards).	Kind of material.
226	Nov. 18	Bas Obispo...	3,570	earth
221	Nov. 29	Bas Obispo...	1,940	earth
232	Nov. 21	Empire.........	1,740	rock and earth
225	Nov. 29	Empire.........	1,560	rock and earth
222	Nov. 11	Culebra.........	2,193	rock and earth
213	Nov. 29	Culebra.........	1,718	rock and earth
202	Nov. 11	Pedro Miguel	1,840	earth
209	Nov. 23	Pedro Miguel	2,160	soft rock
103	Nov. 26	Mindi	1,848	earth
115	Nov. 26	San Pablo ...	1,255	earth

Shovel No. 226 made the highest record ever made on the Canal in eight hours.

Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dippers of a capacity of 5 cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

CANAL READY IN 1914?

Views of Congressman James R. Mann.

Congressman Mann of Illinois, who visited the Isthmus recently in company with the members of the Appropriations Committee of the House of Representatives, has given out to the press of the United States a carefully prepared statement of his impressions while here. From this statement the following extracts are taken:

"Conditions in Panama are in most excellent shape. The organization is almost perfect. The discipline is good. The enthusiasm of the employes is great. Everyone there seems imbued with the spirit of intense energy. Up to the beginning of the present year the work there was preparatory, but now the actual construction work is going on.

"A comparison with the work of the French company is instructive. After the French had been at work three years, in October, 1885, they took out of what we now know as the Culebra Cut 227,000 cubic yards of dirt. In October just passed we took out 826,000 cubic yards. The rainfall was about the same as in 1886. During the calendar year 1886 the French took out of the Culebra Cut 3,637,000 cubic yards, while we removed during the year ended October 31 last 7,890,000 cubic yards.

"The main excavation made by the French was not in the Culebra Cut, but easy work near the Carribean sea. Ours has been in the Cut, and mostly rock excavation. Mr. Randolph, one of the board of consulting engineers, estimated the average capacity of the steam shovels at 9,500 yards a month, while in October last one of our shovels took out 37,357 cubic yards of rock and another 39,615 of rock and earth.

"We saw the work at the worst time of the year, and yet there was a constant movement of empty trains from the dumps to the shovels and of loaded ones from the shovels to the dumps. The work has now progressed to such an extent that even the shifting of the track toward the embankment is done by machinery and in short order.

"During the last year we have removed about one-seventh of the material to be excavated from the great Cut, and our full completement of machinery in not yet installed.

"I gave special study to the Gatun dam, locks and spillways, and brought home with me a large number of samples of clay and rock which I gathered by the side of these works. Apparently no move is made without thorough knowledge of the conditions. From the borings which have been made with diamond drills it is certain that the foundation of the great locks is rock.

"There are numerous problems in connection with the locks and dams which are not yet worked out, but the care with which the engineers in charge are proceeding leaves no doubt that, when fully determined, the plans will beyond proper criticism. The problems yet unsolved relate only to expense, and not to ability to construct safe dams and locks.

"At the rate of progress already established, the Culebra Cut can easily be excavated within six years. It is probable that by the spring of 1911 they can turn water into the new Gatun lake. That will enable them to excavate a considerale section of the Canal by dredging. There is no reason to doubt, unless some improbable pestilence should seize the Isthmus, that the Canal will be finished and ready for test within seven years, and probably even sooner.

"The original estimate for finishing the Canal was $145,000,000, but it will necessary to modify, in many respects, the suggested plans of the original Commission and board in order to insure greater safety of construction. This will add considerably to the expense. While we have expended enormous sums of money, and in some cases extravagantly, upon sanitation and buildings, and while we are paying excessive salaries, yet the unit cost of the work is probably a little less than the estimate of the board of consulting engineers. It is probably safe to estimate the total cost at about $200,000,000, in addition to the $50,000,000 paid to the Panama Republic and the French Canal Company. These estimates may be increased if it becomes the policy further to widen and lengthen the locks.

"The consulting board provided locks 95 feet in width and 900 feet in length. It estimated that ships 25 per cent larger than the Lusitania could go through them. We have already provided for enlarging the locks to 100 by 1,000 feet, which would take a ship 50 per cent larger than the Lusitania. The naval board has now reccommended 110 feet width, but this would mean an additional lake or lakes to store water for use in the dry season."

Reduction of Force.

Owing to the completion of considerable work on hand, a reduction in the number of employes in the Mechanical Division has been necessary during the past month. From November 1 to December 2 the number of employes of this Division who have been transferred, or discharged, has been as follows: Gold roll, 261; silver roll, 465—total 726. In all reductions, American citizens are preferred for retention, whenever the needs of the service permit.

November Police Report.

The November report of the Chief of Police of the Canal Zone shows a slight decrease in the number of arrests for the month, 423 having been made in November to 429 in October. The 423 arrests were for 40 different offenses, and 39 different nationalities were represented. They were divided among the different towns as follows:

Ancon	25	Bas Obispo	10
La Boca	29	Gorgona	58
Pedro Miguel	28	Tabernilla	37
Paraiso	20	Bohio	5
Culebra	45	Gatun	27
Empire	39	Cristobal	85
Las Cascadas	15		
Total			423

There were 58 prisoners in the district jails on November 30, a decrease of 11 for the month, there having been 69 on October 31.

The Coroner held inquests in 19 cases of accidental death during the month. Seven of these deaths were caused by railroad accidents, three by drowning, and three by explosion of dynamite. The number of convicts at the penitentiary on November 30 was 82, the same as on October 31, as there were four new convicts received and four discharged during the month. The value of work performed by the convicts on roads, etc., during the month was $1,007.10.

The total effective police force on November 30 was 180, and the pay roll for November was $14,540.08.

Gatun Steam Shovel Work.

The maximum daily output for the shovels working at the Gatun Lock site during the five days ending Saturday, November 30, was made on Friday, the 29th ultimo, the number of cubic yards for the five shovels being 5,536, an average of 1.107 cubic yards per shovel. For the same period there was loaded by shovels 113 and 114 at the spillway 6,036 cubic yards, car measurement. The largest day's loading for both shovels on the 25th instant, when 1,404 cubic yards were taken out. Shovel 114 made the largest output for any one day in the week, loading 1,032 cubic yards on the 26th instant.

PERSONAL.

Lieut.-Col. Geo. W. Goethals, Chairman and Chief Engineer of the Isthmian Canal Commission, sailed for a visit to the States on the *Colon* from Cristobal on December 10. During his absence Commissioner D. D. Gaillard will be Acting Chairman and Chief Engineer.

Commisssioner Jo C. S. Blackburn, accompanied by Mrs. Blackburn and his granddaughter, sailed on the *Colon*, December 10. During Mr. Blackburn's absence, Commissioner H. H. Rousseau will be Acting Head of the Department of Civil Administration.

Commissioner Col. W. C. Gorgas returned from his short trip to the States on the *Advance*, which arrived at Cristobal on December 9. Among the other passengers were Miss Laura Carter and Mrs. J. G. Holcombe and family.

Among those returning to the Isthmus on the *Colon* which arrived at Cristobal on December 3, were Dr. H. R. Carter, Director of Hospitals, Mrs. Carter and their son, E. C. Carter; Dr. Lloyd Nolan and wife of Colon Hospital; Mrs. and Miss Cooke, mother and sister of Mr. Tom M. Cooke; and Mr. S. C. Klauber.

Dr. S. H. Caldwell, who has been Veterinary Surgeon in the Division of Material and Supplies since August, 1905, resigned his position November 17, and returned to the States to enter private business. He was succeeded by Dr. Horace M. Laughlin, a graduate of the Veterinarian College, Columbus, Ohio.

Mr. E. J. Williams, Disbursing Officer of the Isthmian Canal Commission, was married on December 7 to Miss Helen M. Burton. Mr. and Mrs. Williams will sail for the Isthmus on the *Dunottar Castle* from New York, December 14.

Mr. F. B. Stewart, Trainmaster of the Panama railroad, accompanied by his wife and family, sailed on the *Finance* from Cristobal on December 4, for a two months' vacation in the States.

Civil Service Examination.

The local Civil Service examination announced in previous issues of THE CANAL RECORD will be held at the new Administration Building, Ancon, commencing at 9 o'clock a. m., Sunday, December 15.

JOHN K. BAXTER,
Secretary, Isthmian Civil Service Board.

HEALTH REPORT FOR NOVEMBER.

Conditions Continue Favorable.

To the Chairman, Isthmian Canal Commission, Culebra, C. Z.

Sir: I herewith forward report of the Sanitary Department for the month of November, 1907.

You will notice the continued decline in the total death and sick rates to which your attention has been called in the October report. In October there were 277 deaths; in November 267, although the population has slightly increased.

Among white employes we have an annual death rate for October of 17.05 per thousand; for November 15.35 per thousand. Among the negro employes for the same month, the same figures are 29.22 and 22.77, a decided reduction. For all our employes the figures are 25.97 and 22.77.

Taking the total population, including employes and non-employes, in Panama, Colon and the Canal Zone, we have in October an annual rate of 30.19 deaths per thousand, and in November 28.86.

The sick rate also shows a marked improvement, being in October 26.90 sick daily out of every thousand employes, and in November, 20.49.

Comparing the November 1907 figures with those for November 1906, we find an annual death rate of 30.61 per thousand for all employes last year against a rate of 20.66 per thousand for this year, or taking the whole population into account, in Panama, and the Canal Zone, there was in November, 1906, 35.76 annual death rate per thousand, against a rate of 28.86 for November, 1907.

The total number of employes constantly sick in hospitals and sick camps in November, 1905, was 26.62 per thousand; in November, 1907, it was 20.49.

Looking into the causes of deaths of employes for this month, you will note that there was a total of 16 deaths due to accidental traumatisms, a larger number than from any single disease, pneumonia with 14 deaths, all among black employes, giving the highest number next to traumatisms. There were 11 deaths from malarial fever against 25 in November of last year.

No smallpox occurred on the Isthmus during the month, and it has now been eighteen months since the last case of yellow fever.

On the whole, therefore, you will note that there continues to be very satisfactory progress in the health conditions of the Isthmus.

Very respectfully,
C. C. McCulloch, jr.,
Acting Chief Sanitary Officer.

GENERAL SANITATION—CITY OF PANAMA.

The usual forces have been engaged and the work carried on satisfactorily. The stegomyia and anopheles work is still being prosecuted with vigor, as is the yard inspection, especially in the suburbs of Panama, which are composed of the following districts: Pueblo Nuevo, San Miguel, Calidonia, Marañon, Guachapali.

The health of the community is good, no contagious diseases were reported during the month, and there was no disease especially prevalent.

SANITATION—CANAL ZONE.

During the months of October and November the numerous rainy days produced conditions especially favorable to the development of mosquito life throughout the Zone.

In the report for the month of November, 1906, it was stated that during the rainy season of 1907, there would be a smaller number of anopheles breeding places near the settlements. So far as conditions that could be controlled are concerned, this has been the case. However, the showers have been so frequent lately, that in many places close to where our employes are located, the ground has been practically saturated and the smallest depressions have often been found to contain water continously for weeks at a time. Both anopheles and culex larvae have been found in such places, although this did not occur, and sufficient water did not remain in the same places for the propagation of mosquito life during the months of October and November of 1904, 1905 and 1906. Conditions have thus arisen, which are new and exceptional, and consequently it has been necessary to pay more close attention to mosquito breeding places than at any previous time.

Many of the laborers are working near anopheles breeding territory, and swampy areas distant from the settlements where no anti-malarial work has been accomplished. Of course it is thus possible for the laborers to become infected at or near the place where they work. It is already known that on the Isthmus anopheles will bite during the daytime, especially when the person bitten is in a shaded spot, in the jungle, or when not in the full sunlight. Toward evening and possibly on cloudy days anopheles travel and seek blooded animals. When men are sheltering from the sun or rain, they are subject to anopheles bites at any time of the day. It is not possible to state how much malaria is contracted during the hours of daylight, or late afternoon at the place where the men are working. There is no doubt about the female anopheles becoming active and biting toward dusk and at night both indoors and outside.

During the month the interior of buildings at most of our camps have been carefully examined for anopheles, and at many camps they were found to be either very scarce or absent. The laborers' barrack-buildings near La Boca contained more anopheles than any barracks examined.

It is interesting to note that anopheles have been found at native villages and were present in the native eating houses where some of the employes board. As our employes, especially the laborers, who live in screened houses also, spend many evenings at these native villages, they are becoming infected at such places, and in order to reduce the malarial sick rate below its present status, it is necessary to carry out anti-malarial measures in the vicinity of native villages and settlements when conditions warrant such work being done.

The continuous control and reduction of anopheles breeding places near settlements has been followed by a steady decreasing malarial sick rate in spite of the fact that the weather conditions during October and November have been very much in favor of mosquito propagation and decidedly unfavorable to anti-malarial work.

In fact, from October 26 to November 30, inclusive, the malarial sick rate has been very close that of the months of the last dry season when we had less malarial fever among our employes than at any previous period. It should be noted also that the laborers are scattered out over a much larger territory than ever before, and that some of the men are living and working close to the swampy areas.

Among the 4,000 gold employes (mainly Americans) who are located between Gatun and La Boca, only 167 hospital cases of malaria have occurred during the month, and many of these cases are not new infections. Among their families consisting of 1,550 women and children, 31 were reported sick in bed with malaria during the month.

Among all employes in the territory mentioned, the per cent of employes sent to hospital (malarial fever cases) each week since September has been as follows:

Average weekly rate for four weeks, September 1 to September 28, 1.24 per cent; September 29 to October 26, 0.95 per cent. Average weekly rate for five weeks, October 27 to November 30, 0.55 per cent.

It has been two years and two months since a case of yellow fever occurred in the Canal Zone, although during that period many cases have occurred at both Atlantic and Pacific ports to the north and south of the Isthmus. Every effort is being made to eliminate the possibility of it occurring again and stegomyia destruction work is being vigorously carried out throughout the Zone.

Tennis Tournament at Empire.

The Canal Record:

It may be of interest to all devotees of athletic sports, particularly to tennis enthusiasts, to know that, among other athletic events, a tennis tournament was held at Empire on Thanksgiving Day.

Eight pairs were entered, all of whom participated in the preliminaries, from which the four successful pairs were advanced to the semi-finals. After a close contest this round was decided in favor of two pairs, who then fought out every point for the honors in the finals—the successful pair thereby becoming winners of the tournament.

So far as is known to the writer, this is the first tennis tournament held on the Isthmus and, from the interest displayed by gallery and players, was a very successful one. The great interest shown was remarkable when the very poor condition of the playing court is considered. This regrettable feature is to be eliminated in the near future, as steps have been taken toward building two first class cement courts.

The contests were as follows: Preliminaries—Poole and Hall vs. Hartley and Stewart; Manley and Squires vs. Brown and Muzzy; Toone and James vs. Gay and Nichols; Humphrey and McCullough vs. Hostetter and McLean.

The winning pairs entering the semi-finals were as follows: Hartley and Stewart vs. Hostetter and McLean; Brown and Muzzy vs. Toone and James.

The successful pairs in this division being Hostetter and McLean, and Toone and James, were then matched for the finals, which were won by Toone and James.

Judging from the interest shown, and reports from other points, tennis bids fair to become an important feature among the sports and games on the Isthmus.

Mason A. James.

Empire, Nov. 30.

SOCIAL LIFE OF THE ZONE.

Further Organization Work Among the Women.

A number of women of the Protestant Episcopal church at Ancon met Archdeacon Bryan at the residence of Dr. Gruver, December 2, when an altar guild was formed under the title of the Guild of St. Luke the Beloved Physician. The work of the guild has already begun and some improvement in the appointments and order of the chapel have been made. Flowers are furnished each Sunday, the arrangement of these being in charge of two members of the guild who are appointed to serve for two services. A meeting of the men of the congregation was held December 5 to see what could be done toward the erection of a church building, but it was found that no definite arrangements can yet be made.

The women's clubs are preparing for the approaching Christmas festival. In several cases the clubs are joining with the Sunday schools and the citizens and the children of the Zone are promised a rousing celebration of the winter festival.

The Culebra club met December 5, at 2.30 p. m. In the absence of the president the business meeting was in charge of Mrs. J. H. Murray, vice president. The report of the chairman of the various committees showed the interest taken by all the members in the work of the club. The Spanish classes with lessons on Tuesdays and Thursdays have begun with a good attendance. The amusement department, Mrs. Bryan, chairman, has formed a club of twenty-four. A whist club will be formed and later physical culture will be taken up by this department. As chairman for the special committee on the entertainment for Thanksgiving Eve, Mrs. Murray reported that the musical program was received with much appreciation and the sports and contests were heartily entered into. The entertainment was enjoyed by about three hundred.

The Sunday school has arranged for a Christmas tree in which not only the children of the school will have a share but all the white children of the town. Assistance will be given by the members of the Y. M. C. A. and the woman's club. A committee were appointed with Mrs. Bryan as chairman to meet and confer with the Sunday school committee in order to ascertain how they could assist. A generous response to a subscription taken up at the meeting was made. The club will hold its next regular meeting December 9.

The Gatun club held its regular meeting December 6, with a good attendance. The president, Mrs. Chester Harding was in the chair. The program for the afternoon consisted of an informal talk on club work on the Zone which was followed by a series of short papers on current events arranged by Mrs. O. L. Brownell, who was chairman of the entertainment committee. Mrs. McCullough gave a short account of the reasons of the removal of our fleet to the Pacific. Mrs St. Clair read a paper on matters of historic and other interest, and Mrs. Story presented a paper on Venezuela. While the departmental work of this club is not very clearly defined, the organization is doing some of the best and most concerted work of any along the line. Owing to the isolated position of Gatun, the needs of the community are peculiar and are being met by the club with good judgment and wisdom. A set of by-laws, which will further assist in the club effort are under consideration. The club will unite with the Sunday school in the Christmas celebration when a program will be given by the children. The entertainment will be held in the club room of the Commission hotel on Christmas Eve and the woman's club has undertaken to provide refreshments for the occasion. The Gatun club has taken up the servant question as one of the peculiarly difficult domestic problems of the Zone, and a proposition to establish fixed wages according to the number in the family has been made. This question has also been suggested by members of the other clubs and the matter may be taken up at the Federation meeting in January. The following delegates have been elected to attend the meeting: Mrs. Chester Harding, Mrs. D. H. St. Clair, Mrs. E. G. Bath and Mrs. Newnes. Mrs. E. Von Munchew will act on the Federation Advisory Board.

The Paraiso club had a good attendance at its regular meeting. The following delegates were elected to attend the Federation meeting: Mrs. E. B. Healey, Mrs. Charles Koehler, Mrs. Heath, and Miss Inez Dillon. Mrs. E. L. Waid will act on the Federation Advisory Board. The club took action on the resolution recently made by the Cristobal club regarding adverse citicism of conditions on the Isthmus and in the Zone and resolved to adopt the same. A motion that the club give a dance on New Year's Eve was laid on the table. The club will give a series of entertainments in January, the proceeds of which will go toward the purchase of a piano for the club rooms.

As a result of a recent action of this club, the following letter has been issued to the president of each club in the Zone:

"Dear Madam—As the result of a recent interview with Colonel Goethals, Chairman of the Isthmian Canal Commission, by a delegation from the Paraiso Woman's Club, we were instructed by Colonel Goethals to ascertain the number of members in each club who are desirous of transportation in order to worship with their respective denominations when no services are being held in camps of their abode.

"You will please help me in this by informing me of the number of members in your club who would be glad to avail themselves of the privilege."

In this connection it may be stated that the Commission wagonette meets the morning train at Panama on Sundays for the purpose of conveying church passengers to the Protestant and Roman Catholic chapels in the hospital grounds, and calls at both points in time for the train leaving Panama at 10 o'clock.

The Ancon club held its meeting December 4, there being a good attendance. The regular business meeting which was presided over by Mrs. Maguire, vice president, occupied about an hour, several new matters being taken up for discussion. The educational department has established a library for club members, the presentation of a book constituting membership. A libarian will be appointed and the books will be in circulation within a short time. Miss Russell, the treasurer, having been called to Jamaica for two months, the chair appointed Mrs. Bates to the office *pro tempore*. The program for the afternoon consisted of a paper on Home Nursing by Miss Murdock, acting supervising nurse at Ancon hospital. Musical numbers were also given. Mrs. Higgins and Mrs. Andrews acted as ushers and reception committee for the afternoon. A number of new names were proposed and these presented at the previous meeting voted upon. The next meeting, December 18, will take the form of a reception to the president of the club, Mrs. W. C. Gorgas, who is expected to return December 16 from a short visit to the States.

That the work of the Empire Woman's Club is appreciated by the men of the community was evidenced on Thanksgiving morning when a baseball game between the married men of East and West Empire was played for the benefit of the organization. The occasion was highly successful and the club has acknowledged the receipt of a considerable additional sum in its treasury as the result of the efforts as their fellow townsmen.

The club chorus is doing good work under the direction of Mrs. Adolf Faure: an opportunity to judge of the progress made will shortly be given when the chorus will sing at a public concert.

A regular meeting of the Cristobal Woman's Club was held on Wednesday, Decemcember 4, and was largely attended. The program was in charge of the philanthropy department, the feature of the day being an address by Mrs Jeanette Ferris Brown on the subject "Settlement Work in New York." Following this were talks on the "Feasibility of Settlement Work in Colon," by Rev. Wm. Pearn of the Cristobal Union Church, and Rev. E. J. Cooper of Christ (Episcopal) Church, Colon. At the business meeting on November 27, Mrs. Jeanette Ferris Brown was elected a member of the Advisory Board of the Canal Zone Federation. Mrs. Walter G. Tubby, Mrs. Claude C. Pierce and Mrs. Frederick Mears were elected delegates to represent the club at the Federation meeting to be held in Cristobal on January 4, and Mrs. Hermine Guckel was appointed alternate for the president, Mrs. Lorin C. Collins. The art and literature department met Monday, December 9, the subject being "Social Custom of Japan," by Mrs. Belt. The educational department meets Thursday, December 12, with Mrs. Guckel. The woman's club is assisting the Y. M. C. A. and the Sunday school is arranging for a Christmas tree and old time celebration. The yearly calendar of the club is in readiness for the printer, and shows a total membership to date of 77.

Tivoli Club Dances.

The next dance by Tivoli Club will be given at the Hotel Tivoli on Saturday evening, December 14, and a subsequent dance will be given at the same place on Tuesday evening, December 31. Members desiring invitations sent to friends should send their requests to the undersigned not later than December 10th and 21st. Members cards, to be enclosed with invitations, should acompany requests. MALCOLM ELLIOTT,
Secretary.

At the ports of Ancon and Cristobal for the past month there were entered 32 vessels with a total tonnage of 67,724, and there were cleared 31 vessels with a total tonnage of 64,333.

COMMISSION BUILDINGS.

I.

What the French Did—Development of the American Type.

By P. O. Wright, Jr., Architect.

In a circular dated July 23, 1904, issued by the first chief engineer of the Isthmian Canal Commission, Mr. John F. Wallace, provision was made for the establishment of an architectural office which should have charge of the building operations connected with the work of the Canal, the construction and repair of highways, and the laying out of grounds adjacent to buildings.

In accordance with this circular, steps were immediately taken to secure the necessary men and to organize an office and working force. By the 1st of October there were in the office 10 men including the Supervising Architect, and the outside force consisted of 350—a total of 360 workmen in the service. This is less than one-twelfth of the number recently employed on buildings, exclusive of the construction and repair of highways and the laying out of grounds adjacent to buildings.

In less than a year, the work in connection with road building was transferred to the Department of Sewer and Water Works, where it then properly belonged, thereby permitting the architectural force to concentrate upon building operations.

Shortly after the organization of the office, an effort was made to find out what the French companies had done in the line of building operations, both by looking up the plans and records, and by going over the ground. To go over the ground was a very difficult matter on account of the small working force, the topography and extent of the ground over which the building were scattered, and the rank growth of vegetation. From the records at hand it appeared that there were turned over to the American Government by the French companies 2,145 buildings, but recent investigations and discoveries have shown that the actual number was 2,265. These buildings were scattered at 79 different points, mainly along the line of the Panama railroad, over a distance of more than 60 miles from Colon on the Atlantic side to Panama and adjacent islands on the Pacific side.

The existence of a great many of these buildings was apparent only from the records. They were overgrown or hidden by vegetation, so that they could not be seen from the railroad, and departing from the railroad meant a sudden plunge into the jungle on either side.

The plans left by the French companies number about 100 sets. They are beautiful examples of draftsmanship, are accurate, and have been in constant use during the past three years, chiefly in connection with repairs. These plans were of great service at the beginning of building operations as they gave a clue to the location of buildings drains, etc. When it came to repairing some of the old buildings they were almost indispensable as they furnished a definite knowledge of the French method of construction. It was found that the plans had been carefully studied and in most cases the work had been carried out as shown.

REPAIR OF FRENCH BUILDINGS.

The first construction work in connection with buildings was the repair of those in sight. This began with the buildings in the vicinity of Panama, and at Colon. Later the buildings along the line also received repairs. Owing to the good materials and thorough workmanship employed by the French companies the greater part of the buildings were in such a condition as to warrant repairs even after standing unused for ten or more years.

The French plans and buildings furnished some valuable features of tropical architecture. These were fully appreciated by the Architectural Department, and were later incorporated in the design of buildings erected by the Commission. With the addition of sanitary plumbing and screening to the French hospital buildings many of them are as perfect for their use as could be devised.

One of the first of the old French buildings to be repaired was a sanitarium on the Island of Taboga located about ten miles from the city of Panama. This sanitarium, situated on the lower slopes of one of the precipitous mountains that form the island, was a favorite resort for convalescence and recreation in the days of the French companies. The location was admirably chosen, overlooking the Bay of Panama with its many islands, and commanding in the distance a view of the mainland of the Isthmus, with the twinkling lights of the city of Panama at night. Out of the steep hillside a wide shelf was excavated giving ample room for the building, and also for a level lawn in front bordered by cocoanut palms. The building itself is simple in design and of an inexpensive form of construction, but admirably adapted to the purpose for which it was intended. The main building consists of two stories, each long and narrow, and surrounded by wide verandas and divided by wide halls, one on the axis lengthwise of the building and two crosswise.

At the time of the American occupation, the sanitarium was in very bad repair, the roof and floors had given way in many places, the stairs were tumbling down, the veranda posts and rails were rotting away and doors and blinds were broken and missing. All this dilapidation, however, failed to discourage the swarm of natives, who inhabited the place, and seemed quite content with their abode. The building was thoroughly repaired and renovated by the Commission and is now in use as a convalescent hospital.

CONSTRUCTION OF NEW BUILDINGS.

In addition to the repair work on all classes of buildings, it soon became evident that a great number of new buildings would be required for living quarters, both for single and married employes, black and white. These buildings had to be designed not only to meet the requirements of climate but for material which would stand shipment from the United States with the least chance of being ruined by breakage or exposure to the weather. The character of the building sites and means of transportation of material to the same, the official status of employes, the cheapest methods of construction and an effective method of screening were other matters that had also to be considered.

For the accommodation of white employes, 24 types of building have been designed and built. The general details of construction and the materials used are as follows:

Footings—These are of concrete usually two feet square and one foot deep, the tops being flush with the natural grade of the ground. Upon these footings are placed cubes of concrete which carry wood foundation posts eight feet square. By this method of starting the construction of the building, little or no excavation is required, the first floor level is quickly reached at a minimum cost, and space is thereby provided beneath the building for ventilation.

The concrete cube just above the surface of the ground provides protection for the foundation posts against rotting. The ends of all posts and all woodwork beneath the first floor level are tarred or creosoted to keep out ants.

Walls and ceilings—The buildings are of frame construction, the walls being covered on the outside with drop-siding and the inside walls and ceilings are of matched and beaded ceiling, set in a vertical position in the case of the walls. No plaster is used and no papering required. The woodwork is painted or stained and very pleasant effects are obtained with the cheapest wood at a minimum cost by the latter method, the trim and sash being painted white. For ventilation, the upper parts of the outside walls of kitchens, bathrooms and servants' rooms are left open and covered with screening, the openings being protected from rain by hoods of galvanized iron.

Verandas—A great deal of veranda space is provided in all of the type houses, some of them being entirely surrounded thereby. This is necessary on account of the climate and furnishes protection to the house against the driving rains. By screening the verandas the most effective method is obtained for excluding mosquitoes and other insects.

Roofs—The roofs are made of corrugated, galvanized iron laid on wood strips placed two to each sheet. This roof has been found to be the most practicable one for use on the Isthmus on account of the cheapness and quickness with which it can be built, and the least liability to leaks. All corrugated iron roofs are provided with large ventilators, and it has been found that the heat from the roof is not noticeable in the rooms below if a space is left between the ceiling and the roof.

Plumbing and lighting—All of the type houses are provided with sanitary plumbing when they are located in the vicinity of a sewer system, and also with electric lights as a means of fire protection where the current is available.

Dry rooms—The better class of houses are provided with dry rooms in which clothes and other articles may be put to prevent them from becoming mouldy. The dry room is simply one which can be closed up tight, and in which a lamp or electric light may be burned. These rooms also take the place of closets which are ordinarily built in houses in the temperate zone.

Doors and windows—Windows are of the French or casement type and all rooms adjacent to verandas are provided with double outside doors.

In the proper application of the above noted features of construction and materials, it is possible to construct buildings at a minimum of cost which will meet all the requirements of necessity and comfort in a tropical, insect infested country.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Sanitary Inspectors of the Canal Zone.

THE CANAL RECORD:

An association entitled "The Sanitary Inspectors of the Canal Zone" was formally organized on November 21, in the club house at Culebra, C. Z. The object is technical and treats of the ways and means of securing and maintaining the public health of the Canal Zone.

The following officers were elected: A. B. Tucker, Culebra, president; W. J. Murphy, Empire, vice president; E. W. Mitchel, Gorgona, secretary.

The next regular meeting will be held at Empire, December 19, at 2 p. m.

E. W. MITCHEL,
Secretary.

Approved:
A. B. TUCKER,
President.

Isthmian Canal Rebekah Club.

THE CANAL RECORD:

Isthmian Canal Rebekah Club No. 1, of Gorgona, was instituted preparatory to organizing a Rebekah Club. We wish all that are interested and who are eligible to membership to the Rebekah Degree to come and join us. We meet the first and third Wednesday evenings in each month and all will be taken care of while in Gorgona.

MRS. S. E. CALVIT,
Secretary.

Gorgona, C. Z., Nov. 24.

Eagle Lodge.

THE CANAL RECORD:

To all the "Eagles" on the Canal Zone. You are hereby requested to attend a meeting to be held at Fraternal Hall, Culebra, on Sunday, December 15, 1907, at 2.30 p. m., to arrange for the organization of an "Eagle" lodge. Those unable to be present please notify the undersigned.

SELBY MILLER.

Culebra, C. Z., Dec. 5.

Thanks to "An Employe."

THE CANAL RECORD:

I note with much satisfaction the article published in the issue of your paper of December 4, by "An Employe," in which a clear, comprehensive and intelligent comparison is made of the Government employe in the Departmental Service and in the Isthmian Service. The author of this article is to be complimented on his very explicit explanation, as well as for his efforts, and I am sure, everyone, including myself, on the Zone, approves of everything he states.

C. F. COTTON.

Cristobal, C. Z., Dec. 6.

Cocles Tribe No. 3, I. O. R. M.

At the regular meeting of Cocles Tribe No. 3, Improved Order of Red Men, the following officers were elected for the six months beginning January 1, 1908: Sachem, Harry E. Ruckert; senior sagamore, C. E. Anderson; junior sagamore, Wm. C. Healy; chief of records, C. S. Frank; keeper of wampum, A. Heinrick; prophet, E. J. Kennedy.

The meeting was largely attended by members of the tribe and several visitors, and plans for the work of the coming year were discussed. Refreshments were served late in the evening.

WM. C. HEALY,
C. of R.

Empire, Dec. 7.

Sojourners Lodge.

THE CANAL RECORD:

The stated communication of Sojourners Lodge No. 874, A. F. and A. M., will be held at its hall, Fifth and Bolivar streets, Colon, at 7.30 o'clock, Saturday evening, December 14, 1907. Masons in good standing are assured of a fraternal welcome.

G. G. DEDGE,
Right Worshipful Master.

Colon, December 6.

Empire Lodge No. 2, K. of P.

THE CANAL RECORD:

The meeting night of Empire Lodge No. 2, Knights of Pythias, has been changed from Saturdays to Thursdays, effective December 12. The rank of Knight is to be conferred upon a number of Esquires, Thursday, November 19, and it is desired to have a large attendance of the members of this lodge. All visiting Knights on the Isthmus are invited to attend our meetings, which are held in the Municipal Hall, Empire.

C. E. ANDERSON,
K. R. & S.

Empire, C. Z., December 7.

Junior Order U. A. M. and D. of A.

THE CANAL RECORD:

Members of the Junior O. U. A. M. and D. of A. met in the Cristobal Lodge hall on the 24th instant. A permanent organization was formed by the name of "Junior Order of D. and A. Club," with R. S. Houston, president, and J. Frank Houston, secretary. Next meeting will be held at Empire, December 15, 1907. All members of the Order cordially invited to attend.

J. FRANK HOUSTON,
Secretary.

Gatun, Nov. 29.

Isthmian Baseball League.

At a meeting of the Isthmian Baseball League held at Culebra, on December 8, it was decided to open the season on December 22, the competing teams and grounds where opening games are to be played, to be announced later. Mr. Robert Coe presented his resignation as secretary and treasurer which was accepted and Mr. C. E. Anderson, of Empire, elected to that position.

A Card of Explanation.

THE CANAL RECORD:

We have been informed that a large number of Americans in the employ of the Isthmian Canal Commission and Panama railroad, are under the erroneous impression that the recent efforts of the Panama Chamber of Commerce to ameliorate commercial conditions, have for their object the curtailment, or restriction, of commissary privileges to said American employes, etc. In order to disabuse their minds of any such idea, we beg to quote an extract from a petition addressed by the commercial community, to Colonel Goethals under date of December 5, and which reads as under:

"It is also respectfully suggested that the privileges of the Commissaries be granted, not only to those who are citizens of the United States or who receive their compensation on what is known as the "gold payroll" of the Isthmian Canal Commission or Panama railroad, but also to all officials and employes, irrespective of nationality, or of whatever payroll on which they figure."

We are, sir, yours respectfully,

PANAMA CHAMBER OF COMMERCE,
R. ARIAS F.,
President.

Panama, Dec. 9.

At a meeting of the Isthmian Canal Commission on Saturday, December 7, a committee consisting of Mr. Jackson Smith and Mr. H. J. Slifer was appointed to confer with the men representing the commercial interests of Panama, relative to all features of resolutions excepting change in monthly payments, which the Commission does not feel warranted in authorizing. The committee is to report results of the conference to the Commission with the recommendations for action.

Construction of Private Buildings.

The following routine is in effect, in carrying out the approved building regulations in connection with the construction of buildings in the Canal Zone by private parties.

Any one desiring to contract a building submits to the local representative of the Division of Municipal Engineering his lease, or permit, from the Panama railroad, if he desires to build on property of that Company, or in any other case such papers as will show his rights to occupy the ground in question. At the same time the location of the proposed building with reference to Commission buildings is passed on by the local representative of the Sanitary Department. The application is accompanied by plans and specifications showing the class of material to be used, distance of first floor above the ground, clear height from floor to ceiling, distance from adjoining buildings and other points covered by the building regulations.

If the building regulations in effect since September 1, 1907, are complied with in all particulars, the plans and specifications are forwarded to the Municipal Engineering Division, Panama, for formal approval and return to the local representative, who notifies the applicant.

Reasons for Voluntary Separation.

Hereafter, all employes who voluntarily leave the service of the Commission, will be furnished before leaving the Isthmus with a blank form and a penalty envelope addressed to the Chairman of the Commission, with request that the reason for taking such discharge be stated thereon and forwarded to the Chairman personally for his information.

Among the supplies furnished by the Division of Material and Supplies during the month of November were 570,600 pounds of dynamite, 85,800 triple tape fuse, 29,600 detonators, and 15,800 electric exploders. At the La Boca lumber yards of the division 393,131 feet B. M. lumber was distributed to the various divisions of the Canal work.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

REPORT FOR NOVEMBER, 1907.

Total membership, November 30	1,687
Total number of bowling games	5,673
Average per day	219
Total number pool and billiard games	12,101
Average per day	468
Total income from soda fountain	$1,283.46
Average per day	$42.78
Number different men using gymnasium.	290
Number enrolled in chess and checker clubs	85
Number enrolled in dramatic and minstrel clubs	90
Number enrolled in glee clubs	29
Number enrolled in debating clubs	9
Number enrolled in camera clubs.	8
Number enrolled in orchestra	23
Number enrolled in Bible club	38
Number enrolled in Spanish classes	82
Number enrolled in mechanical drawing classes	16
Number members of library	344
Number books withdrawn	1,225
Number Sunday meetings	10
Average attendance	89
Number educational, practical and travel talks	3
Average attendance	70
Number imported entertainments	9
Average attendance	269
Number local entertainments	12
Average	239
Number functions outside Association management	12
Average attendance	108
Number afternoons for women	30
Average attendance	17
Number evening functions to which women were invited	35
Average attendance	34
Number of committees	36
Different men on committees	175
Number letters written at public tables	5,385
Average per day	179
Total attendance at buildings exclusive of functions by outside clubs	23,340
Average attendance per day	778

Y. M. C. A. Bowling League.

Standing of teams at close of tournament, Saturday, December 7:

Team—	Number of games— Played.	Won.	Lost.	Per ct.
Cristobal	54	30	24	.5555
Empire	54	30	24	.5555
Culebra	54	25	29	.4629
Gorgona	54	23	31	.4260

In the final match Culebra won three straight games from Gorgona, putting the Culebra team in third place and Gorgona last. Out of the last thirty games played by the Culebra team twenty-five have been won, and in the final match Culebra made the highest team average —867 for three consecutive games—which has been made in the tournament.

GORGONA.

After several months' preparation the Gorgona Minstrels are now assured. The committee on organization is composed of Mr. David C. Hayes, manager; Arthur J. Sweet, Wm. F. Morrison and C. M. Bullard, with Chas. E. Jennings as director of music.

Twenty men are in training for the track team which will enter the New Year's Day athletic meet at Ancon, and have elected G. C. Ferris captain.

Beginning Monday night, the Two-Team Bowling League will open a tournament which will decide what men are to represent Gorgona for the Isthmian team championship, to be played at Culebra on Christmas Day. Mr. Harry Spreeken won the November high score at 234.

The pool and billiard men have organized another tournament. The games are to be run off by continuous tournament of fifty (50) points per game; *games to count;* six (6) men to play in pool and (12) in billiards; two games to be played per night, Round-Robin style; one table reserved for each tournament. Names and results of games will be posted daily. The committee in charge is: Carl Von Der Heurk. chairman; A. Y. MacFarland. Frank Lascar; Louis F. La Rose is secretary and Chas. Cate scorer.

EMPIRE.

The December program is as follows:

Sunday, December 15—Archdeacon Bryan will deliver an address to the young men at 1.45 p. m.

Friday, December 20, 8 p. m.—A concert will be given by the Ernest Gamble Concert Company. They will arrive from the States on the steamer *Panama* December 15.

Sunday, December 22—Sacred concert by the Gamble Concert Company.

Tuesday evening—Christmas Eve—will be the night for the Christmas entertainment.

Mr. E. C. Mills has assumed his duties as director of the pool-room after an absence of several weeks on account of illness. A new billiard table has been added to the equipment of the room.

The gymnastic work is progressing nicely and members are enjoying that feature of the activities. A basket-ball team has been organized, with Mr. G. M. MacAdam as captain, and the following schedule arranged: December 14, game with Cristobal at Cristobal; December 16, game with Culebra at Empire; December 21, game with Cristobal at Empire; January 4, game with Culebra at Culebra.

CULEBRA.

The concert given by the Culebra Association Glee Club Friday night, December 6, was a decided success, and was appreciated by a good-sized audience.

Indoor baseball was started last Monday night, and was greatly enjoyed by a large number of spectators and players. Match games will be arranged in the near future.

An invitation bowling contest will be held at Culebra Christmas day, including two-men teams and single players. Each association will be limited to four men in the singles and to two two-men teams in the doubles. Suitable prizes will be given, and the championship of the Isthmus will be decided.

On Saturday evening, December 14, Culebra will play Gorgona a basket-ball game at Culebra. A number of men are preparing for the field meet to be held at Ancon, January 1. High bowling scores for the week are: Lamster, 242; Fullman, 213; Vogel, 210; Coppin, 205. A splendid average for one evening's playing was made by Mr. Lamster, averaging 207 1-5 in five games, three of them being match games.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending December 3:

FRESH MEATS.

		Price. cts.
Beef, sirloin, roast	*per lb...*	*22*
Beef, rump, roast	*do*	*18*
Beef, Porterhouse	*do*	*25*
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	*16*
Beef, rib-roast, second-cut	*do*	*14*
Beef, chuck-roast	*do*	*11*
Beef, soup	*do*	*6*
Beef, stew	*do*	*8*
Beef, corned	*do*	*10, 12, 14*
Beef, corned, sirloin butts, all lean	*do*	*16*
Steaks, sirloin	*do*	*22*
Steaks, Porterhouse	*do*	*25*
Steaks, rump	*do*	*18*
Steaks, tenderloin	*do*	*20*
Steaks, round	*do*	*12½*
Veal, cutlets	*do*	*21*
Veal, short-cut chops	*do*	*20*
Veal, loin	*do*	*13*
Veal, entire forequarters	*do*	*9*
Veal, for stewing	*do*	*9*
Mutton, entire forequarters,	*do*	*9*
Mutton, short-cut chops	*do*	*18*
Mutton, leg	*do*	*14*
Lamb, for stewing	*do*	*10*
Lamb, entire forequarters	*do*	*10*
Lamb, short-cut chops	*per lb...*	*22*
Lamb, legs	*do*	*18*
Pork, cuts	*do*	*20*

MISCELLANEOUS.

Livers, beef	*per lb...*	*9*
Livers, calf	*each.*	*55*
Sausage, pork	*per lb...*	*16*
Sausage, Frankfurt	*do*	*16*
Sausage, Bologna	*do*	*15*
Sausage, Lieberwurst	*do*	*15*
Sweet bread, veal	*each...*	*$1.20*
Sweet bread, beef	*per lb...*	*25*
Tripe, pickled, Honeycomb	*do*	*12*
Oysters, ½-gallon kegs	*each...*	*70*
Pickled pig's feet	*per lb...*	*6*
Tongue beef, 4 lbs. each	*do*	*13*
Tongue pig	*do*	*12*

POULTRY AND GAME.

Chickens, dressed (milk-fed).	*each...*	*†$1.20*
Fowls	*do*	*75*
Ducks, fatted	*do*	*90*
Turkeys	*per lb...*	*25*
Broilers, frys (chicken)	*each...*	*†75*
Squabs	*do*	*30*
Ducklings	*do*	*85*
Eggs, fresh	*per dozen*	*40*
Geese (about 10-lb)	*each*	*$2.00*

CURED MEATS AND LARD.

Bacon, strips per lb	*per lb...*	*23*
Bacon, English breakfast, slic'd	*do*	*§26*
Ham, sugar-cured, sliced	*do*	*§25*
Ham, one-half (for boiling)	*do*	*§20*
Ham, Yorkshire (imported).	*do*	*25*
Hams, Westphalia	*do*	*45*

DAIRY PRODUCTS.

Butter, prints, prime quality.	*per lb...*	*38*
Cheese, Camenbert	*each*	*28*
Cheese, Phila		*22*
Cheese, Neufchatel	*do*	*6*
Cheese, Roquefort.	*per lb.*	*45*
Cheese, Young America	*do*	*22*
Cheese, Swiss	*per lb...*	*30*
Cheese, Gouda	*do*	*30*
Cheese, Edam	*each...*	*90*
Milk	*quart*	*15*

FRUITS AND VEGETABLES.

Apples	*per lb...*	*4½*
Apples, fancy table..	*do*	*8*
Limes	*per hun...*	*30*
Bananas	*per dozen*	*5*
Grapes	*per lb...*	*10*
Pears	*do*	*12*
Grape Fruit	*each...*	*3*
Lemons	*dozen*	*10*
Oranges	*do*	*12*
Tomatoes	*per lb.*	*5*
Squash, Hubbard	*do*	*5*
Celery	*bunch*	*18*
Cucumbers	*per lb...*	*†25*
White potatoes	*do*	*2½*
Cabbage	*do*	*1½*
Turnips	*do*	*3*
Lettuce	*do*	*†14*
Onions	*do*	*2*
Cauliflowers	*do*	*8*
Sauer kraut	*do*	*3½*
Yams	*do*	*2½*
Sweet Potatoes, American..	*do*	*2*
Squash	*do*	*1½*
Plantains	*dozen*	*12*
Egg Plant	*per lb.*	*12*

** Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries.

NEW ARTICLES		*Price.* cts.
Holders, Turkish cigarette, No. 686-2, stock No. 37,846	*each...*	*$1.60*
Holders, Turkish cigarette, No. 686-2½, stock No. 37,837	*do*	*$1.30*
Holders, Turkish cigarette, No. 686-2, stock No. 37,848	*do*	*$1.05*
Holders, round cigarette, No. 675-1½, stock No. 37,849	*do*	*65*
Holders, round cigarette, No. 675-2½, stock No. 37,851	*do*	*$1.20*
Holders, cigar, No. 650-3, stock No. 37,852	*do*	*$1,60*
Holders, cigar, No. 650-2½, stock No. 37,853	*do*	*$1.30*
Holders, cigar, No. 650-1½, stock No. 57,854	*do*	*12*

Concert.

By the I. C. C. Band at the Tivoli Hotel, Sunday, December 15, at 3 p. m.:

PROGRAM:

1 March..........*On the Bleachers*...... Wood
2 Selection..........*Amorita*..........Czibulka
3 Serenade.......... *The Filipino*..........Masten
4 Waltz..........*Don't Be Cross*..........Zeller
5 Selection..........*Chimes of Normandy*..........Planquette
6 Sand Dance..........*Moonlight on the Suwanee*..........Friedman
7 Flower song..........*Venetian Roses*.......Bennett
8 Overture..........*Sunlight and Showers*..........Flath
9 Descriptive..........*The Cavalry Charge*.......... Luders

Synopsis—Morning of the battle; infantry heard approaching with fifes and drums; cavalry in the distance, coming nearer and nearer until they charge upon the enemy; cavalry, infantry and artillery in the melée of the battle; defeat of the enemy, pursued by the cavalry in the distance.

10 March..........*Victorious Eagle*........Rosey

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Cristobal, Sunday, December 22.

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun
Sydney B. Williamson, Division Engineer, La Boca.
E. A. LeMay, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering; Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, Chief Clerk.
C. E. Weidman. Chief, Fire Department, Cristobal.
Charles F Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
Translators: F. H. Sheibley and Charles M. Brown.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
J. M. Fernandez, District Judge, La Boca.
R. B. Myers, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry C. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Ancon; C. C. McColley, Empire; Chas. L. Parker, Gorgona; Edgar Lowe, Cristobal, division superintendents.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Vaccination.

TO ALL CONCERNED:

In order to properly enforce the vaccination ordinance, and at the same time to accommodate employes returning from their vacation, and in order to prevent unnecessary vaccination and friction resulting therefrom, this circular is to inform such employes that only a vaccination that has taken in recent years is required and all persons who have been successfully vaccinated, in the opinion of the Quarantine Officer, can secure a certificate to that effect, which will remain effective and be accepted as evidence in this particular for a period of three years. This certificate will be accepted by the surgeons on the Panama railroad steamers as evidence of immunity and it will not be necessary to revaccinate persons having such certificates.

This certificate of vaccination can be secured from the Quarantine Officer of Colon and the Quarantine Officer at Panama, but applicants for the same will be required to show such scars of vaccination before this certificate is granted.

(Sgd.) C. C. McCULLOCH, JR.,
Acting Chief Sanitary Officer.

Ancon, C. Z., Nov. 23,

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Venetia	*H.-A.*	*Saturday*	*Dec.*	*7*
Panama	*P.RR.*	*Monday*	*Dec.*	*9*
Dunottar Castle	*P.RR.*	*Saturday*	*Dec.*	*14*
Prinz Sigismund	*H.-A.*	*Saturday*	*Dec.*	*14*
Trent	*R.M.*	*Saturday*	*Dec.*	*14*
Finance	*P.RR.*	*Thursday*	*Dec.*	*19*
Altai	*H.-A.*	*Saturday*	*Dec.*	*21*
Colon	*P.RR.*	*Tuesday*	*Dec.*	*24*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec.*	*28*
La Plata	*R.M.*	*Saturday*	*Dec.*	*28*
Advance	*P.RR.*	*Monday*	*Dec.*	*30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Advance	*P.RR.*	*Sunday*	*Dec.*	*15*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Dec.*	*17*
La Plata	*R.M.*	*Wednesday*	*Dec.*	*18*
Panama	*P.RR.*	*Saturday*	*Dec.*	*21*
Venetia	*H.-A.*	*Saturday*	*Dec.*	*21*
Prinz August Wilhelm	*H.-A.*	*Tuesday*	*Dec.*	*24*
Dunottar Castle	*P.RR.*	*Thursday*	*Dec.*	*26*
Finance	*PRR.*	*Tuesday*	*Dec.*	*31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec.*	*31*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Trent	*R.M.*	*Tuesday*	*Dec.*	*24*

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon about December 21.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Dec. 11, 1907.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Baugh, Miss Linda M.
Bluskett, J.
Borrup, Andrew, Engr.
Brodmerkel, August
Brown, Orno M.
Culbertson, Willoughby
Cragg, E.
Dickerson, Chas. O.
Dickerson, Geo. E.
Douley, Robt. H.
Dazerado, Ermindo C.
French, Mr. and Mrs. Marvin
Fraser, Howard
Fowles, James
Gratzhe, Fred de
Grendean, H.
Haldeman, Ezra
Humphrey, W J.
Jureller, Mike
Layne, Florence Miss
Lee, Bert
McArdle, Miss Nellie
McHale, Bernard
McKeever, D. J.
Maynor, John
Miller, John
Norton, F. D.
Rodeman, E W.
Twombly, H. H.

Rainfall from December 1 to 7, 1907, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Total.	Maximum in one day.
Atlantic Slope.		
Cristobal	6.40	2.28
Brazos Brook	3.32	1.75
Gatun	4.08	1.57
Bohio	2.49	.99
Tabernilla	2.25	1.35
San Pablo	1.40	.80
Central Section.		
Bas Obispo	.97	.68
Gamboa	.57	.33
Empire	.57	.54
Camacho Dam	1.26	1.03
Culebra	.83	.80
Rio Grande	.77	.75
Pacific Slope.		
La Boca	1.40	.86
Ancon	.88	.33
Naos	.57	.27
Chagres Valley.		
Alhajuela	1.19	.95

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, DECEMBER 18, 1907. No. 16.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

Chairman's Monthly Report.

The report of the Chairman of the Isthmian Canal Commission for November is published in full in other columns of this issue of THE RECORD It gives, as usual, specific information as to the progress of the Canal construction in all divisions of the work. It shows that the total amount of material excavated in the Culebra division during the month of November was approximately three and one-half times that for the corresponding month in 1906, and that the average output per shovel was about 74 per cent greater, being 18,822 cubic yards per shovel against 10.833 last year. The proportions of rock and earth were about the same during the two periods. The rainfall this year was less than half what it was in November last year.

Good progress was made in the removal of material carried into the Canal prism by the Cucaracha slide. At the close of the month three tracks were in operation around the slide in the bottom of the Cut, and all loaded trains were moving toward the south as they were before the slide occurred. It is believed that within a comparatively short time this slide will cease to be an inconvenience to the work. At the Gatun dam site the trestle on the upper toe of the dam was practically completed, as was also the trestle between the French canal and the spillway, and 25 bents were driven on the lower trestle on the west side of the west diversion.

There was a decrease in the force of the Commission employes during the month while the Panama railroad force remained stationary. Less than 500 contract laborers, Europeans and West Indians, were received during the month. The monthly payment system has resulted in increased stability in the force. A comparison of reports of November 1, 16, and 30 shows a falling off in the total force of about 7 per cent, and in European laborers 12 per cent. This decrease continued for three days, which was about half the usual period under the old system. European recruiting during the month was confined to Spain, no Italians or Greeks being brought to the Isthmus. The labor recruiting operations have been discontinued in the French West Indies. Fewer men were recruited in the United States than during any month since March, 1906, and the decreased demand for skilled labor has permitted the withdrawal of one of the three labor agents.

Few new buildings were authorized during the month, and practically no new quarters. Subsistence receipts were about $5.000 less than during the month of October, but they show a substantial margin of profit.

The average daily consumption of water in the city of Panama during November was 775,367 gallons, as compared with 755,290 gallons during October. The average daily consumption in Colon was 759,650 gallons, as against 426,695 gallons during October. The large increased consumption in Colon was due to the constant flushing of the sewers and hydrants during the month. The total consumption from the Mount Hope reservoir was 1,358,133 gallons, as compared with 1,336,009 gallons in October. The spillway of the reservoir has been raised twelve inches, adding 40,000,000 gallons to its capacity, making the total capacity 548,165,000 gallons.

Money Deposits in Post-offices.

A statement prepared by the Director of Posts shows that there was on deposit in the post-offices of the Canal Zone on November 30, 1907, a total of $200,994.19. This amount was paid in for money orders which the purchasers had made payable to themselves. In other words, these figures show that a large number of the employes of the Canal are using the post-offices of the Zone as banks of deposit for their savings. The distribution of this money among the post-offices is shown by the following table:

Gorgona	$39,180.35	La Boca	$ 7.898.50
Empire	36,051 63	Ancon	7 039 66
Culebra	35,761.50	Cristobal	6,613.00
Pedro Mig'l.	18,781 80	Tabernilla	5.005.00
Paraiso	15.249 75	Gatun	4 160 00
Las Casc'd's	13,852 50	Corozal	1.098.00
Bas Obispo	9.967.50	Matachin	340.00
Total			$200,994.19

An Incomplete Citation.

There was published in THE CANAL RECORD of last week a card of explanation in behalf of the Panama Chamber of Commerce, signed by R. Arias F., as president of that body. In this card there was embodied what purported to be an authentic and complete paragraph from a petition addressed by the commercial community of Panama to Colonel Goethals, Chairman of the Isthmian Canal Commission, under date of December 5. As quoted by Mr. Arias this paragraph read as follows:

> It is also respectfully suggested that the privileges of the Commissaries be granted, not only

(continued on next page)

THE PRESIDENT ON THE CANAL.

Passage in His Annual Message Sent to Congress on December 3.

Work on the Panama Canal is proceeding in a highly satisfactory manner. In March last, John F. Stevens, Chairman of the Commission and Chief Engineer, resigned, and the Commission was reorganized and constituted as follows: Lieut.-Col. Geo. W. Goethals. Corps. of Engineers, U. S. A., Chairman and Chief Engineer; Maj. D. D. Gaillard, Corps of Engineers, U S. A.; Maj. William L. Sibert, Corps of Engineers, U. S. A.; Civil Engineer H. H. Rousseau, U. S. N.; Mr. Jo C. S. Blackburn; Col. W. C. Gorgas, U. S. A., and Mr. Jackson Smith, Commissioners. This change of authority and direction went into effect on April 1, without causing a perceptible check to the progress of the work. In March the total excavation in the Culebra Cut, where effort was chiefly concentrated, was 815,270 cubic yards. In April this was increased to 879,527 cubic yards. There was a considerable decrease in the output for May and June owing partly to the advent of the rainy season and partly to temporary trouble with the steam shovel men over the question of wages. This trouble was settled satisfactorily to all parties and in July the total excavation advanced materially and in August the grand total from all points in the Canal prism by steam shovels and dredges exceeded all previous United States records, reaching 1,274,404 cubic yards. In September this record was eclipsed, and a total of 1,517,412 cubic yards was removed. Of this amount 1,482,307 cubic yards were from the Canal prism and 35,105 cubic yards were from accessory works. These results were achieved in the rainy season, with a rainfall in August of 11.89 inches and in September of 11.65 inches. Finally in October, the record was again eclipsed, the total excavation being 1,868,729 cubic yards; a truly extraordinary record, especially in view of the heavy rainfall which was 17.1 inches. In fact, experience during the last two rainy seasons demonstrates that the rains are a less serious obstacle to progress than has hitherto been supposed.

Work on the locks and dams at Gatun, which began actively in March last, has advanced so far that it is thought that masonry work on the locks can be begun within fifteen months. In order to remove all doubt as to the satisfactory character of the foundations for the locks of the Canal, the Secretary of War requested three eminent engineers, of special experience, in such construction, Alfred Noble, Frederic P. Stearns and John R. Freeman, to visit the Isthmus and make thorough personal investigations of the sites. These gentlemen

(continued on next page)

NOTES OF PROGRESS.

(Continued)

to those who are citizens of the United States or who receive their compensation on what is known as the "gold payroll" of the Isthmian Canal Commission or Panama railroad, but also to all officials and employes, irrespective of nationality, or of whatever payroll on which they figure.

As it appeared in the petition to Colonel Goethals this paragraph read as follows, the parts omitted in the letter signed by Mr. Arias, being placed in italics:

> It is also respectfully suggested, *in connection with the above mentioned Executive Order*, that the privileges of the Commissaries be granted, not only to those who are citizens of the United States or who receive their compensation on what is known as the "gold payroll" of the Isthmian Canal Commission or the Panama railroad, but also to all officials and employes, irrespective of nationality or of the payroll on which they figure, *and that there only be excluded from Commissary benefits, as was the original intention, all workmen and laborers, who, inasmuch as they are now fed by the Isthmian Canal Commission and Panama railroad, have no need of making purchases in Government stores.*

It will be seen from this that it was the request of the petitioners that all laborers and workmen be exempted from the privileges of the Commissary.

Dredging at La Boca.

The maximum daily output by the three dredges of the La Boca dredging division for the week ending December 14, scow measurement, was as follows: December 9, dredge A2, 7,352 cubic yards; December 10, dredge 14, 7,531 cubic yards; December 9, dipper dredge, 3,360 cubic yards. The total output of each of the three dredges for the same period was, dredge A2, 40 553 cubic yards; dredge 14, 39,814 cubic yards; dipper dredge, 4,480 cubic yards. The total output from December 1 to December 15 was dredge A2, 74,848 cubic yards; dredge 14, 71,826 cubic yards; dipper dredge, 14,000.

Studies in Dimension.

The total amount of material removed in the excavation of the Canal, including accessory work, during each working day in the month of December, will about equal a cubical block of the dimensions of 125 feet on each side. The Isthmian Canal Commission will have excavated during the year 1907, covering the period January 1 to December 31, enough material to put an earth and rock blanket over that part of the Island of Manhattan bounded by 59th street and the Battery, North River and the East River, one foot thick, and then have enough material left over to cover the entire Central Park of the city of New York with a layer over five feet thick.

The three lock projects of the Isthmian Canal Commission, viz: Gatun, Pedro Miguel and La Boca, provide for the use of reinforced concrete in sufficient quantity to build 22,842 houses 30 feet by 30 feet of eight rooms each, two stories and basement complete with concrete floors and concrete roof. These houses, each set on its own 75-foot lot, would make three streets with houses on each side of the street, reaching from Panama to Colon, and there would be enough houses left over to make another street from Panama to Gorgona. Or they would make a continuous street from New York to Philadelphia with enough houses left over to make a row on one side of the street from Philadelphia to Washington; or a street with houses on one side from St. Louis to Chicago; St. Louis nearly to Cincinnati, or St. Louis to Kansas City. They would furnish suburban homes to about 120,000 people, and if crowded, as city dwellings usually are, would house a population equal to that of the city of Minneapolis.

PERFORMANCE OF STEAM SHOVELS.

Culebra Division.

Period.	Average number of steam shovels at work.	Number of working days in month.	Output per shovel per day, cubic yards.	Output per shovel per month, cubic yards.	Rainfall—Inches.		Maximum temperature in sun at Empire (degrees Fahrenheit).
					Empire.	Culebra.	
1906—							
January	12.83	26	363	9,430	1.28	1.19	......
February	12.48	23	587	13,494	0.57	0.64	......
March	12.57	27	716	19,335	0 45	1.34	......
April	12.33	24	720	17,289	11.42	8,43	......
May	12.41	27	581	15,684	7.54	7.25	......
June	14 81	26	539	14,025	6 92	8.94	123
July	16.64	25	378	9,441	14.61	20.26	127
August	16 93	27	536	14,461	11.84	12.97	132
September	21.33	24	568	13,664	7.41	6.22	130
October	22.67	27	532	14,373	3.97	8.46	128
November	20.46	24	459	10,833	21.05	19.19	120
December	22.68	25	491	12,267	8.15	9.09	108
1907—							
January	31.04	26	702	18,248	0.08	0.00	104
February	39.87	23	674	15,966	0.13	0.49	108
March	43.88	25	741	18,530	0.16	0.08	105
April	44.12	26	765	19,884	0.09	0.04	116
May	31 70	26	833	21,674	6.22	7 45	118
June	38.24	25	651	16,266	13.53	14.74	118
July	43.28	26	680	17,670	9.85	9.42	118
August	39.70	27	729	19,680	11.28	12.82	120
September	38.50	24	811	19,468	10.61	10.72	123
October	37.63	27	813	21,963	15.34	15.27	123
November	41 88	24	784	18.818	10 40	6.91	123

The performance of the shovels is based upon the working day of eight hours.

The performance of shovels in May was somewhat abnormal on account of labor disturbances. On May 13 so large a number of steam shovel engineers and cranemen had resigned or quit work that but 13 steam shovels were working. As there was no disturbance in the Transportation Department, there was, for a time, available for each shovel an amount of transportation out of all proportion to that used under normal conditions

THE PRESIDENT ON THE CANAL

(Continued)

went to the Isthmus in April and by means of test pits which had been dug for the purpose, they inspected the foundations, and also examined the borings that had been made. In their report to the Secretary of War, under date of May 2, 1907, they said: "We found that all of the locks, of the dimensions now proposed, will rest upon rock of such character that it will furnish a safe and stable foundation." Subsequent new borings, conducted by the present Commission, have fully confirmed this verdict. They show that the locks will rest on rock for their entire length. The cross section of the dam and method of construction will be such as to insure against any slip or sloughing off. Similar examination of the foundations of the locks and dams on the Pacific side are in progress. I believe that the locks should be made of a width of 120 feet.

Last winter bids were requested and received for doing the work of Canal construction by contract. None of them was found to be satisfactory and all were rejected. It is the unanimous opinion of the present Commission that the work can be done better, more cheaply, and more quickly by the Government than by private contractors. Fully 80 per cent of the entire plant needed for construction has been purchased or contracted for, machine shops have been erected and equipped for making all needed repairs to the plant; many thousands of employes have been secured; an effective organization has been perfected; a recruiting system is in operation which is capable of furnishing more labor than can be used advantageously; employes are well sheltered and well fed; salaries paid are satisfactory, and the work is not only going forward smoothly, but it is producing results far in advance of the most sanguine anticipations. Under these favorable conditions, a change in the method of prosecuting the work would be unwise and unjustifiable, for it would inevitably disorganize existing conditions, check progress, and increase the cost and lengthen the time of completing the Canal.

The Chief Engineer and all his professional associates are firmly convinced that the 85 feet level lock canal which they are constructing is the best that can be desired. Some of them had doubts on this point when they went to the Isthmus. As the plans have developed under their direction their doubts have been dispelled. While they may decide upon changes in detail as construction advances they are in hearty accord in approving the general plan. They believe that it provides a canal not only adequate to all demands that will be made upon it but superior in every way to a sea level canal. I concur in this belief.

Gatun Steam Shovel Work.

The maximum daily output for the six working days ending December 7, was made on Thursday, December 5. The total number of cubic yards, car measurement, was 7,327 for the five shovels, an average of 1,465 cubic yards per shovel.

The name of the postal service on the steamers of the Panama Railroad Steamship Company has been changed from "New York and Colon sea postal service" to "New York and Canal Zone sea postal service."

SOCIAL LIFE OF THE ZONE.

Benefits to be Derived from the Affiliated Clubs and Their Quarterly Meetings.

One of the effects of the recent organization of women's clubs in the Canal Zone is the benefit to the many small communities. Social life in the larger towns was already partly developed as was shown by the number of secret societies established, comprising organizations for both men and women, but the desire for social life in the small towns was strongly felt and the club idea has been instrumental in the development of interesting social life in these places. Even before the organization of the women's clubs this need was met by card parties, dances and other local functions given at rare intervals. Such occasions under the direction of an organized body assume new dignity and add greatly to the successful carrying out of community effort.

The open organizations comprising the Y. M. C. A., with nearly eleven hundred members in the four stations established; the women's clubs with upward of 350 members, and the smaller but fast growing church societies organized under the Commission chaplains. Among these organizations is the club for young girls and one for boys organized at Cristobal to meet the needs of those too young to belong to the Y. M. C. A. or the woman's club. Mrs. Wm. Pearn, wife of the pastor of the Union Church, is in charge and the clubs, which are entirely undenominational, meet at the church at frequent intervals. The Christian Endeavor Society at various towns is engaged in work of a philanthropic nature. The society takes up many obscure cases that come under its notice and in this way much quiet work is being done.

The regular meetings of the clubs will be held this week as follows: Ancon, December 18, Empire and Culebra, December 19. Except the meetings of special committees to make final arrangements for the Christmas celebrations, no other club meeting will be held until after the holidays.

The Gatun Woman's Club gave a musical entertainment on Friday evening, December 13, when a program of vocal and instrumental music and recitations was rendered. The entertainment was in charge of Mrs. Von Munchow, and was enjoyed by a large number of club members and their friends. At the close of the program those who wished to, remained, and the rest of the evening was spent in dancing.

The regular meeting of the Cristobal Woman's Club was held December 11. Madame Le Prince of Ancon was the guest of honor and gave an address on "Art in the home." The afternoon was greatly enjoyed by a large number of club members. The next meeting will take place on the evening of December 18 when a concert will be given under the auspices of the Art and Literature Department. Each member is entitled to bring an escort and two friends.

Christmas Services.

Archdeacon Bryan will hold services at the Protestant Chapel, Ancon Hospital, on Christmas Day as follows: Holy Communion 7. a. m. Morning prayer and sermon at 10 a. m. There will also be a Christmas Festival at the same place on Saturday, December 28, at 2.30 p. m., to which all the American children of Ancon, La Boca and Corozal are invited.

PERSONAL.

Mr. William Gerig, Division Engineer, returned from leave of absence on the *Advance* which arrived at Cristobal on December 9.

Among the passengers on the *Colon*, which sailed from Cristobal on December 10 for New York, were Surgeon J. F. Leys, Superintendent of Colon Hospital, Dr. J. M. Milton, and Mrs. Sydney B. Williamson and daughter.

Surgeon J. C. Perry, Chief Quarantine Officer, sailed on the *Otero* from Colon on December 16, via Cuba, for a vacation of three months in the States. He will return via Porto Rico and the West Indies for the purpose of ascertaining the health conditions at the various ports of the islands, and of coast of Venezuela.

Mr. F. C. Nordsiek, Assistant Purchasing Agent at New York, who has been on a business visit to the Isthmus since December 9, returned to New York on the *Advance* which sailed from Cristobal, December 15.

Mr. John K. Baxter, Chief Clerk of the Department of Civil Administration, was married at Ancon on December 18 to Miss Anita Holt. Mr. and Mrs. Baxter will be at home at house 86, Tivoli Hill.

Mr. John C. Greenway of Coleraine, Minn., and Mr. Sloan Simpson of Dallas, Tex., after spending several days on the Isthmus sailed for New Orleans on the United Fruit Company's steamer on December 10. Mr. Greenway is a warm personal friend of President Roosevelt, having been a member of the Rough Riders during the Spanish War, and is now engaged in mining and banking in Coleraine, Minn.

Among the passengers returning to the Isthmus on the *Panama* which arrived at Cristobal on December 15, were Mrs. W. C. Gorgas; Major and Mrs. John L. Phillips and family; Mrs. A. B. Herrick and family; Mrs. Sumner Coolidge and family, Mrs. J. A. Smith and family; Miss Emma Gudger, and Miss Lalage Oates.

Proposals for Buildings.

Proposals will be received by the Chief of Division of Material and Supplies, at Cristobal, until December 28, at 2.30 p. m., for the erection by contract of two, type No. 18, quarters at Ancon. The material will be furnished by the Government on the site. Buildings will be similar to those already erected of these types. Plans and specifications can be seen in the office of the Chief Engineer, at Culebra, and will be furnished upon application. A deposit of $5 is required for a copy of the plans and specifications which will be refunded upon the return of same.

Baseball Games.

The opening games of the Isthmian Baseball League will be played as follows: On Sunday, December 22, Ancon vs. I. C. C. will play at Ancon and Empire vs. Kangaroos will play at Empire.

On Christmas day Ancon vs. M. P. & M. will play at Ancon; Empire vs. I. C. C. at Empire, when the pennant won by the I. C. C. team last season will be unfurled; and Gorgona vs. Gatun at Gorgona.

The steamship *Caprivi* sailed from Brunswick, Ga., on December 11, with 42,000 cross-ties for the Commission and should arrive about December 18.

OFFICIAL CIRCULARS.

Rules Governing Leaves of Absence.

CIRCULAR No. 132-B.

The rules governing leaves of absence adopted at the 129th Meeting of the Commission will hereafter be applied as follows:

(1) All employes appointed prior to April 1, 1907, who have not reported from leave of absence since July 1, 1907, will be granted their next leave in accordance with the rules in effect prior to April 1, 1907, and will come under the new rules, as embodied in Circular No. 132, on reporting from such leave. Such employes must take all leave due them, not to exceed 84 days; if any credit still remains it will be added to the next 42 days leave with pay granted.

(2) All employes appointed prior to April 1, 1907, who have reported from leave of absence since July 1, 1907, will be granted their next leave of absence in accordance with the new rules.

(3) All employes appointed on or subsequent to April 1, 1907, will be granted leave of absence in accordance with the new rules.

(4) Not more nor less than 42 days leave with pay will be granted under the new rules and employes who report for duty before the expiration of the leave granted will forfeit the unused portion

(5) Every employe granted leave under the new rules shall enter on his leave within four months after it is due or forfeit his leave for that year. In no case shall an employe be prevented from going on leave under the new rules within four months after it is due, and heads of departments will arrange accordingly.

(6) No leave without [illegible] allowed in addition to leave with [illegible] not reporting for duty within [illegible] after the expiration of the leave granted will forfeit right to pay for such leave.

(7) Hourly employes will not be granted more than 42 days leave without pay. If such employes fail to report for duty within 15 days after the expiration of such leave they will be discharged.

(8) Monthly employes who have leave due will not be changed to an hourly basis until such leave is granted, except with the employes' consent, in which case they will forfeit all accrued leave.

GEO. W. GOETHALS,
Chairman.

Culebra, Dec. 7.

Passes on Freight Trains.

To Heads of Departments and Divisions:

The privilege of riding on freight and construction trains on the main line of the Panama railroad, which has been granted to certain employes holding passes and sixty-trip tickets, is being used to such an extent as to interfere with the movement of such trains, and it is desired that this privilege be limited to cases of absolute necessity.

In order that this privilege may be so restricted, please send me, before the 20th instant, a list of those employes in your Department or Division whose duties necessitate such transportation, giving names, occupation and duties, in detail, in each case.

These lists will be revised as may appear necessary, and after January 1 this privilege will be permitted only on transportation approved by this office and bearing the personal signature of the General Manager of the Panama railroad.

D. D. GAILLARD,
Acting Chairman.

Incorrect Passes of Employes.

Considerable carelessness has been evinced recently in writing up passes for the transportation of Commission employes, in numerous instances passes being only partially filled out. In order to put a stop to this carelessness, instructions have been issued to conductors to take up any pass which is not written in exact accordance with the prescribed regulations, and to collect full fares from the holder of the same.

No refund will be made to employes from whom such irregular passes are collected, and to avoid any inconvenience employes should see that passes are properly and completely filled out before presenting them to conductors, noting particularly the date of expiration.

D. D. GAILLARD,
Acting Chairman
and Chief Engineer.

CANAL WORK FOR NOVEMBER.

Monthly Report of the Chairman to the Secretary of War.

December 13, 1907.

The Honorable,
The Secretary of War,
Washington, D. C.

Sir: I have the honor to submit the following report of operations on the Isthmus for the month of November, 1907:

Department of Construction and Engineering.

CULEBRA DIVISION.

The total amount of material excavated in the Culebra Division during the month was 790,632 cubic yards, as against 834,499 cubic yards in the month of October. Of this amount, 788,092 cubic yards were removed by steam shovels, and 2,540 cubic yards were loaded by hand at Bas Obispo, for use with the rock crusher. The amount of material removed from the Canal prism was 778,860 cubic yards, and from the Obispo diversion, 11,772 cubic yards. In addition to the above, 3,696 cubic yards were removed in grading for the new location of the rock crusher at Bas Obispo.

For comparison with the work done during the corresponding month of the previous year the fol[illegible]ble has been prepared:

Period.	Total amt. of material excavated by steam shovels.	Classification of material.		Av. No. of steam shovels work'g during month.	No. of working days in month	Av. amt excavat'd per shov'l per month.	Rainfall during month.
		Rock.	Earth.				
	cu. yds.	*pct.*	*pct*			*cu yds*	*In.*
Nov. 1906	221,642	67	33	20.46	24	10.833	20.12
Nov. 1907	788,032	71	29	41.87	24	18,822	8.66

From this table it will be noted that the total excavation in the Culebra Division during the month of November, 1907, was approximately three and one-half times that for the corresponding month in 1906, and that the average output per shovel was about 74 per cent greater.

The rainfall during the month of November, 1907, was considerably less than half the amount for the same month last year.

The proportion of rock to earth was approximately the same for the two periods under comparison.

The number of feet of holes drilled during the month was as follows:

By steam and air drills	72.973 feet
By well drills	32,617 feet
By hand drills	13,154 feet
Total	118,744 feet

For blasting operations during the month 128½ tons of explosives were used.

The rock channeler at Bas Obispo channeled 3,487 square feet during the month.

The output of the rock crusher at the same place was 15,224 cubic yards.

During the month 10 3 miles of new track were laid, and 4.8 miles of old track were removed.

The daily average number of laborers at work was 6,943, a decrease of 897 as compared with the preceding month.

Good progress was made in the removal of material carried into the Canal prism by the Cucaracha slide. At the close of the month three tracks were in operation around the slide in the bottom of the Cut, and all loaded trains were moving toward the south as heretofore. It is believed that within a comparatively short time this slide will cease to be an inconvenience to the work.

CHAGRES DIVISION.

Work in this division was continued throughout the month with three 70-ton shovels, the total amount of material excavated from the prism being 44,044 cubic yards, as against 25.627 cubic yards for the month of October. Of this amount, 13,271 cubic yards of rock and earth were taken from the Caimeto side, and 30,773 cubic yards of rock and earth from the San Pablo side.

The rainfall was not so great as during October and less difficulty was experienced in developing dumping ground.

A 45-ton steam shovel commenced loading at San Pablo on November 30.

During the month 1,326 feet of well drilling, and 732 feet of hand drilling were accomplished.

The blasting amounted to 8.322 cubic yards, including a small amount done in October and not previously reported.

The prism and part of the dumping ground at Matachin were cleared during the month, and other work was started preparatory to excavation at this point. Sixty acres were cleared in the prism and 25½ acres outside of the prism.

During the month 2.911 feet of track were laid at San Pablo, 3,814 feet at Caimeto, and 2 277 feet at Matachin.

Boring operations were continued during the month to determine what portions of the division may be excavated by dredging.

The first center line party completed work at Barbacoas, and on the 20th moved camp to Bohio, where work was commenced upon the change of Canal location for the reach near that point. This change of location of the channel will effect a saving of 179,000 cubic yards, of which 31,570 cubic yards are rock and 147,430 cubic yards are earth.

A second center line party was placed in the field at Caimeto to run out the location from this point to the southern end of the division.

The average force employed daily was 765.

The rainfall for the month at San Pablo was 11.21 inches.

COLON DIVISION.

Work in this division was prosecuted during the month by five dredges, two of which worked entirely in the Canal prism; one in both the Chagres river and the Canal prism, and the other two outside of the prism. The amount of material removed by each of these dredges was as follows:

Dredges.	Material.	Amount. (Place measurement)
1 five-yard dipper dredge *Mindi*	Soft	4,500 cu. yds.
1 old French ladder dredge No. 6	Soft	93,484 cu. yds.
1 sea-going suction dredge *Ancon*	Soft	304,000 cu. yds.
1 five-yard dipper dredge *Chagres*	Soft	22,588 cu. yds.
1 sixteen-inch suction dredge (Porto Bello work)	Soft	1,000 cu. yds.
Total		427,572 cu. yds.

The sea-going suction dredge *Ancon* and the old French ladder dredge operated in Limon Bay. The 5-yard dipper dredge *Chagres* continued work in the river, on the site of Gatun dam, until the 7th, when it was removed to the Canal prism. The dipper dredge *Mindi* started work in the old French canal during the latter part of the month.

After undergoing a general overhauling at the dry dock, the 16-inch suction dredge was removed to Porto Bello on the 17th and is still at that point.

Work was continued at the Mindi Hills by two steam shovels, the excavation amounting to 40,003 cubic yards. The output of the shovels was restricted on account of delays from various causes.

During the month 12,175 feet of drilling were accomplished.

GATUN LOCKS.

Borings at the lock site continued during the month, 949.4 feet being drilled.

The five shovels working at the lock site excavated 121,635 cubic yards, an average of 1,048 cubic yards per shovel per day.

At Porto Bello excavation for the foundation of the dams was continued, and 524 cubic yards of material were removed.

On the quarry landing at Porto Bello 101 piles were driven.

Two diamond drill outfits, with boiler and pump, were installed, and drilling commenced on the site of the quarry to determine the character of the underlying rock.

Excavation for the tramway was commenced and part of the site was cleared.

At the site of the power house 228 cubic yards of earth were removed.

GATUN DAM AND SPILLWAY.

Two shovels worked throughout the month on the spillway site, excavating 40,987 cubic yards of material.

During the month 202 piles were driven.

The trestle on the upper toe of the dam was practically completed. The lower trestle was completed between the French canal and the spillway, and 25 bents were driven on the lower trestle on the west side of the west diversion.

Work on the 20-inch suction dredge was continued, and the riveting of deck beams, trusses and bulkheads, and one-half of the deck, was completed. The remainder of the deck was not riveted on account of the non-arrival of reinforcing plates. The bulkheads were caulked, bottom cemented, and ways built for launching.

The rainfall at Gatun during the month was 14.27 inches.

LA BOCA DIVISION.

Dipper dredge No. 1 operated in the new channel about one-half mile beyond the wharf, removing 71,350 cubic yards. This dredge was taken out of commission on November 30 in order to make repairs.

French dredge No. A2 operated throughout the month in the new channel, about two miles beyond the wharf, removing 143,606 cubic yards.

French dredge No. 14 operated in the new channel, a mile beyond the end of the wharf, removing 150,467 cubic yards.

All of the material removed by the dredges was taken from the Canal prism.

LOCKS AND DAMS.

At the lock site a total of 2,182 feet of holes were drilled, and 2,850 pounds of dynamite were used to break up the material ahead of the steam shovel.

One shovel was in operation throughout the month, excavating 8,100 cubic yards of rock.

The east trestle was extended 798 lineal feet. This trestle is being used by the Culebra Division as a toe for the dump along the south face of Sosa Hill.

Borings for developing the nature of the material along the center line between Miraflores and La Boca were continued, 48 holes being completed and 29 new holes begun. The total borings amounted to 2,108 feet. The material encountered ranged from soft mud, through sand, clay and gravel to rock.

In the office a new map of the center line from Miraflores to La Boca was prepared and quantities estimated for this section of the Canal.

At the mouth of the drainage ditch into the sea, 1,335 cubic yards of material were removed, a little more than half of which was rock. The greater part of the ditch is down to main sea level and near enough to completion to be taken over by the Sanitary Department.

Investigations were continued in connection with the spillway location and drainage work.

Twenty-four thousand seven hundred lineal feet of traverse lines were run; 18,500 lineal feet of stadia lines were run on the ridge south of Cocoli river, and 9,700 feet on the crest south of Camaro river.

Work on the flooded area surveys progressed satisfactorily.

The rainfall for the month was 10.03 inches.

RELOCATION OF PANAMA RAILROAD.

Of the 12 temporary connection tracks from the operated line to the relocated line, the 6 connections in the vicinity of Gatun, Gamboa and Miraflores have been completed and are in use. One new connection track was made during the month, leading from the Gatun lock site directly to the 60-foot level on the large fills on the relocated line.

During the month 21,551 cubic yards of material were excavated, and 140,403 cubic yards were placed in embankment.

Trestles were completed for all of the filling up to Gatun. During the month 425 lineal feet of trestle were driven between Mindi and Gatun, 950 lineal feet across the Gatuncillo bottom, 916 lineal feet across Corozal bottom and 800 feet across the Pedro Miguel river, making a total of 3,091 lineal feet of trestle driven during the month of November.

Work was continued on the piers of Bridge No. 309, and two piers were completed.

Four hundred and eighty yards of concrete were placed in the small culverts between Mindi and Tiger Hill, and between Pedro Miguel and Panama; 623 cubic yards were placed in the 10 by 10 foot arch at Gatun.

A standard pile trestle bridge, 45 feet long, which will be known as Bridge No. 049, was built at station No. 8, and a similar bridge, 105 feet long, to be known as Bridge No. 056, was built at station No. 47. Excavation was started for the construction of a 20-foot twin arch culvert at Caimitillo river, near Pedro Miguel.

Work on the driving of the Miraflores tunnel was continued. The material encountered was soapstone and soft sandstone, with numerous faults.

During the month 3,600 feet of permanent track were laid, making a total of 22,577 lineal feet laid to date.

The relocation work was confined to the territory between Mindi and Tiger Hill, between Bridge No. 309 and Gamboa, and in the vicinity of Miraflores tunnel.

The force of laborers employed during the month averaged 800 men.

DIVISION OF MUNICIPAL ENGINEERING.

Panama—Progress maps were made and charts plotted showing the consumption of water from Rio Grande and Mount Hope reservoirs, and a plan of the proposed location of 16-inch water main under Pedro Miguel locks was completed.

A survey was made of Corozal road, and the survey of the Pedro Miguel watershed was continued. A topographical party was engaged on the survey of Ancon Hill.

The concrete sidewalk around the National theater was completed. The roads in the hospital grounds were resurfaced for 3,000 feet, and 250 feet of curb and gutters were placed at Hotel Tivoli. Grading work was done in the vicinity of the Administration Building and the Governor's residence. Water service was extended 500 feet in the Gobbler's Knob section and hose valves installed.

Line work—Fire service was installed at La Boca mess hall. At Pedro Miguel the road was repaired, and fire protection installed at the hotel and coal chute.

At Rio Grande, 3,614 cubic yards of stone were crushed, and 10,600 cubic yards of stripping done. A 50,000 gallon tank was erected at this point.

The usual maintenance work was performed at various points and a number of minor jobs were completed. The operation of pumping plants and condensers was continued.

At Tabernilla 1,500 feet of sewer pipe and 4,500 feet of water pipe were laid. One condenser tank and one fuel oil tank were placed at this point.

About 2,000 feet of sewer pipe and 700 feet of water pipe were laid at Gatun. A retaining wall was constructed and 238 square yards of stone were placed on the roads.

COLON AND VICINITY.

The spillway of Mount Hope reservoir was raised 12 inches, and 50,500 square yards were cleared on the reservoir slopes.

A foundation was built for the fuel oil tank at Mount Hope pumping station, and the use of oil was commenced on November 21.

Work was continued on the road to Mount Hope, and a culvert was constructed across the road at the pumping station.

DIVISION OF METEOROLOGY AND RIVER HYDRAULICS.

The usual observations and measurements were made during the month.

The temperature for the month was above normal, there being two warm waves, the first from the 13th to the 19th and the second from the 27th to the 30th.

With the exception of La Boca, the rainfall was below the station average and the corresponding period of 1906, with a proportionate increase of clear days and a slight diminution of relative humidity. The average decrease in rainfall from November, 1906, was 9.22 for the Atlantic slope, 8.04 for the interior section, and 2.49 for the Pacific section.

The total evaporation was 3.599 inches.

MECHANICAL DIVISION.

The principal features of the work in this division during the month were as follows:

Installation of machinery in the new shops at Empire and Paraiso.

Completion of three pile drivers.

Partial construction of five track shifters.

Completion of one spreader, three Lidgerwood unloaders, and three steam shovels.

Work on erection of three spreaders, three Lidgerwood unloaders, and five 45-ton steam shovels.

Work on erection of 400,000 gallon tank at Gatun.

Installation of three electric cranes at Empire shops.

Installation of boiler plant as Gorgona, and completion of boiler plants at Empire and Rio Grande.

Construction of boardwalk from Gorgana to Gorgona shops.

Operation of foundry at Gorgona, which produced 341,927 pounds of brass and iron castings.

Electrical work at Cucuracha slide. Wiring and miscellaneous work at various points along the line. The installation of fans in the hotels at Culebra, Empire and Las Cascadas, and the completion of the pole line to Paraiso.

Repairs to locomotives, cars, steam shovels, unloaders, spreaders, track shifters, cranes, pile drivers, and other equipment.

Miscellaneous new and repair work for other divisions and departments.

Usual work in connection with the operation, maintenance and repair of shop, electric light, and air compressor plants; also work on shop yards and grounds.

DIVISION OF BUILDING CONSTRUCTION.

During the month 41 new buildings were constructed.

Repairs were made to 131 buildings and 7 old buildings were demolished.

Department of Labor, Quarters and Subsistence.

During the month of November there was a decrease in the force of Commission employes, while the Panama railroad force remained stationary. Less than 500 contract laborers, Europeans and West Indians, were received during the month. For the corresponding period last year the tide of immigration had begun to turn. This year, there seems so far no indication of a large outward movement.

The monthly payment plan has resulted in more stability in the force. A comparison of reports of November 1, 16 and 30, shows a falling off in the total force of about 7 per cent, and in the European laborers of 12 per cent. This decrease extended for three days, a period which would have been doubled under the old system.

European recruiting during the month was confined to Spain, no Italians or Greeks having been brought to the Isthmus. Operations have been discontinued in the French West Indies.

A reduction in certain departments resulted in a decrease in the total force. Fewer men were recruited in the United States than at any time since March, 1906, and the decreased demand for skilled labor has permitted the withdrawal of one of the three labor agents.

Few new building were authorized during the month, and practically no new quarters. There were on file 575 applications for married quarters, the demand for which is greatest at Empire, Cristobal and

Ancon, where there are applications on file antedating July 1. At all other points the applications have been filled within a shorter time. The reduction in force has created many vacancies in bachelor quarters, except at Cristobal, where a congestion still exists.

There were 905 families of gold employes in Commission quarters, and 3,923 bachelors. Culebra has the greatest number of families—192; and Cristobal the largest number of bachelors—691.

The subsistence receipts ran about $5,000 less than during the preceding month, but the operations show a substantial margin.

An unusually small number of complaints were received during the month.

Although the Hotel Tivoli showed a decrease in receipts of $1,000 from the preceding month, there was a profit of $199.25.

Department of Civil Administration.

Courts—In the Supreme Court 1 criminal case was concluded during the month of November. In the Circuit courts 3 civil and 8 criminal cases were disposed of, and in the District courts 39 civil and 333 criminal cases were tried and settled.

Revenues—The stamp sales during the month amounted to $5,824.02, as compared with $6,904.25 in October. The money order sales were the highest on record, aggregating $381,561.10, an increase of $29,603.97 over the sales for October. The fees on money orders amounted to $1,577.74.

The collection of land and building rents aggregated $1,156.40. The District tax collectors reported collections amounting to $4,742.54. The fines and costs remitted by the district judges aggregated $1,996.15.

Twelve vessels entered at the port of Ancon during the month, of an aggregate tonnage of 21,279, while the same number of vessels cleared, of an aggregate tonnage of 31,244. At the port of Cristobal 20 vessels entered, of an aggregate tonnage of 46,245, and 19 vessels cleared, of an aggregate tonnage of 42,089.

Five estates were settled during November and two new estates were received for settlement. At the close of the month 12 estates remained unsettled.

Police Department—There was an increase during the month of five men in the effective strength of the Police Department, the force at the close of the month consisting of 203 men, including officers and clerical force.

Four hundred and twenty-three arrests were reported, as compared with 429 in October. Four prisoners were received at the Zone penitentiary and 4 were discharged during the month, leaving 82 prisoners in confinement on November 30.

As Coroner of the Canal Zone, the Chief of Police reported 19 deaths, 7 due to railroad accidents, 3 to explosions of dynamite, 3 to drowning, 1 suicide and 1 case of suspected homicide.

Fire Department—Three fires in the Canal Zone were reported during the month, none of which resulted in material damage. Regular drills with the volunteer fire companies were continued, and the property of the Commission and the Panama railroad was periodically inspected. A new volunteer fire company was organized at the freight station in Panama, and a regular fireman has been detailed to instruct this company in the use of the apparatus. The company at Corozal was disbanded, in view of the difficulty experienced in assembling the members for drill, due to the fact that they are employed elsewhere during the daytime. In future, the employes of the Corozal hotel will be regularly drilled.

DIVISION OF SCHOOLS.

The enrollment in the schools for white children during November was 387, an increase of 36 over the month of October. The average daily attendance was 311. The colored schools showed an enrollment of 1,092 an increase of 78 over the preceding month, with an average daily attendance of 678. One additional teacher for white children was appointed during the month.

The present force embraces 19 teachers for white children, and 18 teachers for colored children. In the schools for white children there are 20.3 pupils enrolled for each teacher, and in the schools for colored children 60.6 children for each teacher. A general examination held at the close of the month indicates that the progress made since the opening of the schools at the beginning of October has been satisfactory.

DIVISION OF PUBLIC WORKS.

The report of the Superintendent of Public Works showed that on November 30 there were 1,136 connections using water in the city of Panama, as compared with 1,123 on October 31. In the city of Colon there were 177 connections using water at the close of November, as compared with 162 at the close of the preceding month. In the Canal Zone, on November 30, there were 56 private connections, as against 53 at the close of October.

The average daily consumption of water in the city of Panama during November was 775,567 gallons, as compared with 755,290 gallons during October. The average daily consumption in Colon was 759,650 gallons, as against 426,695 gallons during the preceding month. The large increased consumption in Colon was due to the constant flushing of the sewers and hydrants during the month. The total consumption from the Mount Hope reservoir was 1,358,133, as compared with 1,336,000 gallons in October.

During the month, the Panama railroad consumed in Colon 140,333 gallons, as compared with 146,097 gallons in October.

Twenty six permits for the installation of plumbing were issued during the month in the city of Panama, and 20 in the city of Colon.

Various complaints submitted by the health officers of Panama and Colon were investigated, and the property owners concerned were required to comply with the regulations.

The hydrants in both Panama and Colon were flushed once a week and there were few complaints relative to the condition of the water.

On November 1 the operation of the sump at Colon was turned over to the Division of Public Works.

At the expiration of the period of grace allowed on bills for water from the public mains, practically no outstanding bills remained.

The work of inspecting the mains and connections in the Canal Zone for leakage and unnecessary waste was continued during the month and proper action was taken in the instances reported.

Sanitary Department.

[The full report from this department was published in THE CANAL RECORD last week.]

Respectfully,

D. D. GAILLARD,
Acting Chairman.

Hints About Laundry.

THE CANAL RECORD:

The following is submitted for publication in THE CANAL RECORD with a view to the betterment of the service of the laundry department of the Commissary. Some suggestions are offered which if closely adhered to will undoubtedly result in fewer causes, real or imaginary, for complaints by patrons.

This department handles every week an average of 1,600 bundles, containing 75,000 pieces. Legitimate complaints are welcomed and receive careful consideration, as being the surest way of discovering errors made by employes. In addition, any suggestions looking toward the betterment of the service are invited.

Many of the complaints about shortages are caused by the custom, especially common among the bachelors, of lending one another different articles of clothing. This results, in many cases, in pieces carrying two, and sometimes as many as five different marks, for when soiled work is received there is placed upon it the mark which the laundry list that accompanies it shows to be that of the sender. It can readily be seen how this condition tends to make shortages and mistakes more frequent.

We receive complaints sometimes that clothes have been scorched. This is generally chargeable not to careless work in the laundry but to the profuse perspiration with which every one is naturally troubled in this climate. In the case of white goods these perspiration stains can be removed entirely, but they remain in colored goods and the heat, incident to ironing the clothing, develops the stains into what looks like scorched places. We do not iron underclothing in order to overcome this tendency to develop perspiration stains, but straighten each article out by hand and put it in a press. This is done at considerable expense and for the benefit of those sending work to this department.

Another cause of staining is mildew. If persons will see that soiled clothing is not put away until thoroughly dry, they will find that they have no cause for complaint on account of mildew stains. Clothing received from the laundry in a wrinkled condition, as some complain is often the case, should be hung up for a short time, when the wrinkles, caused by the starch having absorbed the moisture in the atmosphere, will disappear.

Many packages are received without proper address of the sender. If all those forwarding work to the laundry will be careful to see that name and address are plainly shown, both on the list and package, and that, if listed, the articles are listed properly, much trouble may be avoided, and the efficiency of the laundry service of the Commissary Department will be improved.

GEO. T. RENKE,
Supt. Laundry Dept.

Cristobal, Dec. 9.

Fences are being placed about all the docks of the Panama Railroad Steamship Company at Colon, Cristobal, Panama and La Boca, and it is expected that the work will be finished in about a month. When completed a watchman will be stationed at each gate and no person will be either admitted to the dock or allowed to depart without a pass, and no goods will be received or allowed to be removed without a written order from the proper authority.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

CRISTOBAL.

After several months of delay and experiment, a system of hot baths has been installed in the club house.

Cocked hat is coming into considerable favor with the bowlers, and a tournament will soon be organized. A two-men tournament in bowling is being played. The winners will roll in a friendly contest at Culebra on Christmas Day with teams from the other associations. The winners of the preliminaries this week are: Nelson and Strong, Cleary and Wolnitzek, Taylor and Barte, Kiernan and Christian, Porter and Dillon.

Horton's ice cream has been added to the soda fountain list. It is shipped from New York in cold storage.

The final series of games in the bowling tournament proved to be intensely exciting. Empire was three games in the lead of Cristobal, and would have gained the cup by winning any one of the three games last Saturday night, but the Cristobal team gained a complete victory. The tie will be rolled off at Gorgona on Saturday, December 21.

Duncan Fletcher has been elected captain of the track team, and is getting the candidates for the New Year's day meet out for practice on Tuesdays, Thursdays and Saturdays. R. P. Sartor has been elected acting captain of the basket-ball team.

A class in wireless telegraphy is conducted in the night school. Practical instruction in operation and maintenance of a wireless plant is given. The instructor is C. L. Short.

CULEBRA.

The Chess club began a championship tournament last week, which promises to be a success. Since the orgaization a few months ago, this club has shown improvement, both in regard to membership and the quality of chess played.

Following are the names of the twenty contestants for championship honors: Forbes, Warner, Keller, DuBois, Hubbert, Mnener, McIntyre, Strong, Rupp, Alper, Johnson, Ragan, Holz, Wempe, Oliver, Schoellhorn, Chambers, Willson, Willson, Freeman.

The pool tournament for the local championship began on Tuesday, December 17. The entries closed Thursday last, with the following (18) men entered: Gamble, Stevens, Daniels, Thweatt, Chambers, Crockett, South, Vogel, Fleishman, Delahanty, Flynn, Thomas, Ward, Halstead, Coulter, Perrault, Winters and McCann.

Entertainments in the near future will be the Ernest Gamble Concert Company, Thursday, December 19, and a Christmas Tree on Wednesday, December 24.

In a fast game of basket-ball, that was played at Culebra on December 14, the Gorgona Y. M. C. A. team defeated the Culebra team by the close score of 53 to 49. The line-up and summary was as follows:

Gorgona—		Culebra—
Wenzel, Bath	l f.	Brown
La Rose	r.f.	Baxley-Paulette
Swanson	c.	Paulette-Baxley
Taylor	l.g.	King
Calvit, Wenzel	r g.	Soule

Goals from field—Soule, King, 2; Baxley, 6; Paulette, 3; Brown, 6; Wenzel, Bath, Swanson, 14; La Rose, 6. From fouls: Baxley, 13; La Rose, 6: Swanson, 3. Referee and umpire: Richards.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Dec. 18, 1907.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Brandon, Samuel
Carson, George
Carter, Mrs. J. Wm.
Christy, C. A.
Deems, Ernest
Dego, Dan
Diaz, Marcelina
Fisher, Edward
Gates, Dr. I. N.
Gerow, Mrs. Wm.
Groves, Richard
Hall, J. A.
Hoffman, Mrs. and Mr.
Holbrook, Jim W.
Holder, Conrade
Jackson, Mrs. M.
Jerry, Edward
Jarry, Carl
Jordan, T. M.
Lrandeau, Mederick
Lester, Henry
McAnally, Robt.
McNuake, Geo.
Major, J. I.
Mayhew, Henry
Nielson, C.
Polk, Mrs. Edith
Ready, W. T.
Repp, E. A.
Ruckert, Harry E.
Walsh, W. H.

COMMISSARY DEPARTMENT.

NOTICE.

Wednesday, December 25, being Christmas Day, and a public holiday, all the Commissaries and the Commissary Department at Cristobal will be closed, with the exception of the cold storage, bakery and ice plant, from which deliveries will be made as usual.

All cold-storage orders for shipment on December 25 and 26 must be received at the Cristobal Commissary NOT LATER THAN the MORNING OF DECEMBER 24.

JOHN BURKE,
Manager.

COMMISSARY PRICES

For week ending December 15:

FRESH MEATS.		Price. cts.
Beef, sirloin, roast	*per lb...*	*22*
Beef, rump, roast	*do*	*18*
Beef, Porterhouse	*do*	*25*
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	*16*
Beef, rib-roast, second-cut	*do*	*14*
Beef, chuck-roast	*do*	*11*
Beef, soup	*do*	*6*
Beef, stew	*do*	*8*
Beef, corned	*do*	*10, 12, 14*
Beef, corned, sirloin butts, all lean	*do*	*16*
Steaks, sirloin	*do*	*22*
Steaks, Porterhouse	*do*	*25*
Steaks, rump	*do*	*18*
Steaks, tenderloin	*do*	*20*
Steaks, round	*do*	*12½*
Veal, cutlets	*do*	*21*
Veal, short-cut chops	*do*	*20*
Veal, loin	*do*	*13*
Veal, entire forequarters	*do*	*9*
Veal, for stewing	*do*	*9*
Mutton, entire forequarters,	*do*	*9*
Mutton, short-cut chops	*do*	*18*
Mutton, leg	*do*	*14*
Lamb, for stewing	*do*	*10*
Lamb, entire forequarters	*do*	*10*
Lamb, short-cut chops	*per lb...*	*22*
Lamb, legs	*do*	*18*
Pork, cuts	*do*	*20*
MISCELLANEOUS.		
Livers, beef	*per lb...*	*9*
Sausage, pork	*per lb...*	*16*
Sweet bread, veal	*each...*	*$1.20*
Sweet bread, beef	*per lb...*	*25*
Tripe, pickled, Honeycomb..	*do*	*12*
Oysters, ½-gallon kegs	*each...*	*70*
Pigs' tongues	*per lb...*	*12*
POULTRY AND GAME.		
Chickens, dressed (milk-fed).	*each...*	*$1.10*
Fowls	*do*	*75*
Ducks, fatted	*do*	*85*
Turkeys	*per lb...*	*25*
Broilers, frys (chicken)	*each...*	*75*
Squabs	*do*	*30*
Ducklings	*do*	*85*
Eggs, fresh	*per dozen*	*40*
Geese (about 10-lb)	*each*	*$2.00*
CURED MEATS AND LARD.		
Bacon, strips per lb	*per lb...*	*23*
Bacon, English breakfast, slic'd	*do*	*§26*
Ham, sugar-cured, sliced	*do*	*§25*
Ham, one-half (for boiling)..	*do*	*§20*
Ham, Yorkshire (imported).	*do*	*25*
Hams, Westphalia	*do*	*45*
DAIRY PRODUCTS.		
Butter, prints, prime quality.	*per lb...*	*38*
Cheese, Camenbert	*each*	*28*
Cheese, Phila		*22*
Cheese, Neufchatel	*do*	*6*
Cheese, Roquefort.	*per lb.*	*45*
Cheese, Young America	*do*	*22*
Cheese, Swiss	*per lb...*	*30*
Cheese, Gouda	*do*	*30*
Cheese, Edam	*each...*	*90*
Milk	*quart*	*15*
FRUITS AND VEGETABLES.		
Apples, fancy table..	*per lb...*	*8*
Bananas	*per dozen*	*5*
Beets	*per lb..*	*4*
Cabbage	*do*	*1½*
Carrots	*do*	*3½*
Cauliflower	*do*	*7*
Celery	*bunch.*	*18*
Cucumbers	*per lb...*	*14*
Grapes (3-lb. basket)	*each...*	*25*
Grape Fruit	*do*	*3*
Limes	*per hun...*	*30*
Lemons	*dozen*	*10*
Onions	*do*	*2*
Oranges	*per dozen.*	*12*
Pears	*per lb...*	*12*
Plaintains	*dozen...*	*12*
Sauer kraut	*do*	*3½*
Squash	*do*	*1½*
Tomatoes	*do*	*10*
Turnips, yellow and white..	*do*	*3*
White potatoes	*do*	*2*

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* *Indicates reductions from last list.*
† *Indicates advance on last list.*
** *Indicates 5 cents allowed for return of bottle.*
§ *Sold only from Cold Storage and not from Commissaries.*

NEW ARTICLES		Price. cts.
Meats, Morton's, assorted, potted, 3-oz. tins	*per tin*	*6*
Chutney, Bengal	*per bot*	*24*
Water, Sun Ray, sparkling, pints	*do*	*10*
Water, Lithia, 12-oz. bot	*do*	*12*
Lamps, bracket, No. 553, stock No. 37,832	*each...*	*50*
Beds, iron, stock No 37,936.	*do*	*$6.70*
Brushes, scrub, four-row, stock No. 37,988	*do*	*5*
Brushes, scrub, five-row, stock No. 37,989	*do*	*10*
Coolers, water, japanned, 2-gal., stock No. 37,993	*do*	*$1.10*
Coolers, water, japanned, 3-gal., stock No. 37,994	*do*	*$1.35*
Coolers, water, japanned, 4-gal, stock No. 37,995	*do*	*$1.65*
Coolers, water, japanned, 6-gal, stock No. 37 996	*do*	*$2.30*
Coolers, water, japanned, 8-gal., stock No. 37,997	*do*	*$3.00*
Coolers, water, japanned, 10-gal, stock No. 37,998	*do*	*$3.35*
Coolers, water, japanned, 12-gal., stock No 37,999	*do*	*$4.90*
Padlocks, Yale, No. 813, stock No. 37,983	*do*	*65*
Padlocks, Yale, No. 833, stock No. 37,984	*do*	*85*
Padlocks, Yale, No. 853, stock No. 37,985	*do*	*$1.00*
Padlocks, Yale, No. 863, stock No. 37,986	*do*	*$1.30*
Penknives, ivory handle, stock No. 38,237	*do*	*45*
Penknives, buff handle, stock No 37,238	*do*	*45*
Penknives, ivory handle, stock No 38,239	*do*	*55*
Penknives, pearl handle, stock No. 38,241.	*do*	*75*
Penknives, ivory handle, stock No. 38,242	*do*	*75*
Penknives, pearl handle, stock No 38,243	*do*	*$1.00*
Knives, grafting, stock No. 38,244	*do*	*55*
Carvers, 3-in. set, stock No. 38,245	*case...*	*$3.90*
Wicks, 2 M and 2 N J, stock No. 38,127	*each...*	*4*
Beaters, egg, stock No. 38,129	*do*	*2*
Mashers, potato, stock No. 38,131	*do*	*4*
Strainers, extension, stock No 38,132	*do*	*10*
Irons, sad, stock No. 38,133	*do*	*$1.30*
Mop wringers and pails, stock No. 38,134	*do*	*$1.15*
Tubs, galvanized, wash, No. 0, stock No. 38,135	*do*	*50*
Tubs, galvanized, wash, No. 1, stock No 38,136	*do*	*55*
Tubs, galvanized, wash, No. 2, stock No. 38,137	*do*	*60*
Tubs, galvanized, wash, No. 3, stock No 38,138	*do*	*70*
Sifters, flour, stock No. 38,141	*do*	*10*
Strainers, jelly, stock No. 38,143	*do*	*10*
Washboards, single zinc, plain crimp, No. 10, stock No. 38,251	*do*	*25*
Graters, nutmeg, rotary, No. 20, stock No. 38,262	*do*	*8*
Padlocks, Yale, No. 873, stock No. 38,273	*do*	*$1.90*
Freezers, ice cream, 2-qt., stock No. 38,278	*do*	*$1.70*
Freezers, ice cream, 3-qt., stock No. 38,279	*do*	*$2.00*
Freezers, ice cream, 4-qt., stock No. 38,281	*do*	*$2.40*
Beaters, egg, mammoth, stock No. 38,282	*do*	*12*
Teapots, No. 09, stock No. 38,294	*do*	*25*
Teapots, No. 011, stock No. 38,295	*do*	*25*
Teapots, No. 012, stock No. 38,296	*do*	*30*
Teapots, No. 013, stock No. 38,297	*do*	*35*
Teapots, No. 014, stock No. 38,298	*do*	*35*
Teapots, No. 015, stock No. 38,299	*do*	*40*
Pots, coffee, No. 09½, stock No. 38,311	*do*	*20*
Pots, coffee, No. 011½, stock No. 38,312	*do*	*22*
Biggins, coffee, No. 00, stock No. 38,318	*do*	*30*
Biggins, coffee, No. 010, stock No 38,313	*do*	*35*
Biggins, coffee, No. 020, stock No. 38,315	*do*	*40*
Pans, milk, 2-qt., stock No. 38,316	*do*	*10*
Pans, milk, 3-qt., stock No. 38,317	*do*	*10*

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon.

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M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

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W. T. Haynie, Secretary.

Maj Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Miss C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca
David V. Stratton, Chief Clerk.

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R. M. Sands, Secretary.

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E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer Cristobal.
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Sydney B. Williamson, Division Engineer, La Boca.
E. A. LeMay, Chief Clerk.
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Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

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Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal
Charles F Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
Francisco Gamoto, Legal Adviser, Ancon
David C. O'Connor, Supt of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire.
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon
Translators: F. H. Sheibley and Charles M. Brown.
M. C Reidell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
J M Fernandez, District Judge, La Boca.
Edgar S Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry C. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj John L. Phillips, U. S A, Superintendent, Ancon Hospital, Ancon
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Ancon; C. C. McColley, Empire; Chas. L. Parker, Gorgona; Edgar Lowe, Cristobal, division superintendents.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Rainfall from December 1 to 14, 1907, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Total.	Maximum in one day.
Atlantic Slope.		
Cristobal	8.64	2.28
Brazos Brook	6.20	1.75
Gatun	5.19	1.57
Bohio	2.84	.99
Tabernilla	4.30	1.56
San Pablo	2.50	.99
Central Section.		
Bas Obispo	1.28	.68
Gamboa	1.93	.79
Empire	.96	.54
Camacho Dam	1.87	1.03
Culebra	1.74	.80
Rio Grande	1.68	.75
Pacific Slope.		
La Boca	3.90	.95
Ancon	3.14	1.41
Naos	.98	.31
Chagres Valley.		
Alhajuela	1.51	.95

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Dunottar Castle	P.RR.	Saturday	Dec. 14
Prinz Sigismund	H.-A.	Saturday	Dec. 14
Trent	R.M.	Saturday	Dec. 14
Finance	P RR	Thursday	Dec. 19
Altai	H.-A.	Saturday	Dec. 21
Colon	P.RR.	Tuesday	Dec. 24
Prinz Eitel Friedrich	H.-A.	Saturday	Dec. 28
La Plata	R.M.	Saturday	Dec. 28
Advance	P.RR.	Monday	Dec. 30
Panama	P.R.R	Saturday	Jan. 4
Venetia	H.-A.	Saturday	Jan. 4
Dunottar Castle	P.R.R.	Thursday	Jan. 9
Tagus	R.-M.	Saturday	Jan. 11
Prinz Sigismund	H.-A.	Saturday	Jan. 11
Finance	P.R.R.	Tuesday	Jan. 14
Altai	H.-A.	Saturday	Jan. 18
Colon	P.R R.	Monday	Jan. 20
Advance	P.R R.	Saturday	Jan. 25
Prinz Eitel Friedrich	H.-A.	Saturday	Jan. 25
Magdalena	R M.	Saturday	Jan. 25
Panama	P.R.R.	Thursday	Jan. 30

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

La Plata	R.M.	Wednesday	Dec. 18
Panama	P.RR.	Saturday	Dec. 21
Venetia	H.-A.	Saturday	Dec. 21
Prinz August Wilhelm	H.-A.	Tuesday	Dec. 24
Dunottar Castle	P.RR.	Thursday	Dec. 26
Finance	PRR.	Tuesday	Dec. 31
Prinz Sigismund	H.-A.	Tuesday	Dec. 31
Tagus	R M.	Wednesday	Jan. 1
Altai	H.-A.	Saturday	Jan. 4
Colon	P.R R.	Sunday	Jan. 5
Advance	P.R R.	Saturday	Jan 11
Prinz Eitel Friedrich	H.-A.	Tuesday	Jan. 14
Magdalena	R.-M.	Wednesday	Jan. 15
Panama	P.R R.	Friday	Jan. 17
Venetia	H.-A.	Saturday	Jan. 18
Prinz Aug. Wilhelm	H.-A.	Tuesday	Jan. 21
Dunottar Castle	P.R.R	Wednesday	Jan. 22
Finance	P.R.R.	Monday	Jan. 27
Prinz Sigismund	H.-A.	Tuesday	Jan. 28
Atrato	R.-M.	Wednesday	Jan 29

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Trent	R.M.	Tuesday	Dec. 24

The Panama railroad steamships sail at 3 p.m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon about December 21.

Vaccination.

TO ALL CONCERNED:

In order to properly enforce the vaccination ordinance, and at the same time to accommodate employes returning from their vacation, and in order to prevent unnecessary vaccination and friction resulting therefrom, this circular is to inform such employes that only a vaccination that has taken in recent years is required and all persons who have been successfully vaccinated, in the opinion of the Quarantine Officer, can secure a certificate to that effect, which will remain effective and be accepted as evidence in this particular for a period of three years. This certificate will be accepted by the surgeons on the Panama railroad steamers as evidence of immunity and it will not be necessary to revaccinate persons having such certificate.

This certificate of vaccination can be secured from the Quarantine Officer of Colon and the Quarantine Officer at Panama, but applicants for the same will be required to show such scars of vaccination before this certificate is granted.

(Sgd.) C. C. MCCULLOCH, JR.,
Acting Chief Sanitary Officer.

Ancon, C. Z., Nov. 23.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, DECEMBER 25, 1907. No. 17.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Pannma Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

No Dams or Locks at La Boca.

Colonel Goethals, Chairman and Chief Engineer of the Isthmian Canal Commission, who is at present in Washington, took with him to that city a special report to the Secretary of War, published in full in other columns of The Canal Record, containing the unanimous recommendation of the Commission to the effect that the location of the locks and dams at the Pacific end of the Isthmian Canal be changed, abandoning the present locks at La Boca and the dams between Sosa and Corozal hills and Sosa and San Juan hills, and that two locks be built diagonally across the Rio Grande valley, connecting on the east with the hills at Miraflores and on the west with Cocoli Hill by short dams founded on rock. This recommendation of the Commission was approved by the President on December 20.

Recent investigations have shown that there exists a suitable foundation at the new location for the locks and dams contemplated. The locks themselves will essentially constitute the dam, the distance from each end to the hills on either side of the valley being short. The locks lie directly across the valley and almost eliminate the question of dams, the upper end of the locks being so close to the Miraflores hills and the lower end so close to Cocoli Hill that the gaps can be closed by very short dams founded on rock. Under this plan there will be virtually no Sosa lake, as it provides for only about a mile of lake navigation between Pedro Miguel and Miraflores. From Cocoli Hill to deep water in the Pacific a sea level canal is contemplated 500 feet wide. The locks and dams will not only be three miles inland but will lie immediately behind high hills, thus being effectively protected from hostile fire from the ocean.

The trestle at present connecting Sosa and Corozal hills will be utilized as a construction track in the building of the locks above. It will be necessary to procure all the sand for the three locks on the Pacific side from the neighborhood of Chamé Point, about 30 miles west from La Boca on the Pacific; and the trestle in question will shorten the haul materially. It is not known yet where the stone will be procured for the concrete for the locks in the new location. Should it come from Sosa Hill it will be hauled along the same route as the sand. The new location will in addition enable the Panama railroad to continue the use of its present terminal facilities at La Boca.

In regard to cost, the latest estimates show that the project at the Pacific end of the Canal, now abandoned, would have cost about seven and one-half millions more than will the amended project approved by the President. The borings made during the investigations show that there does not exist one-third as much rock in the sea level part of the Canal as was thought to be there in the original consideration of the question. This is the principal item in reducing the estimate for the locks and dams in the new location.

There is a great feeling of satisfaction among the construction engineers of the Commission over the abandonment of the task of constructing dams across the flats of the Rio Grande and Corundi rivers.

Colon Wireless Telegraph Station.

The wireless telegraph station at Colon is situated near the Commission hospital and consists of an oil, power and operating house, two masts each 208 feet high, and a flat top aerial. The station is owned and controlled by the Navy Department of the United States and the operating force, all of whom are enlisted men of the Navy, is composed of one chief electrician, and one electrician, first class, and one electrician, third class. One at least of these operators is on watch at all times. As most of the steamships calling at Colon are equipped with wireless telegraph, the station is in communication with them for several hundred miles off shore, and during the dry season daily communication is maintained with Key West, Fla. Messages sent by this station have occasionally been read by wireless stations at the Washington and New York navy yards.

Colon and Panama Improvements.

In The Canal Record of Wednesday, November 13, there was published a statement of the improvements made in the cities of Panama and Colon during the fiscal year which ended on June 30, 1907. On November 1 the paving, sewering, and furnishing of water to these cities had been practically brought to an end, and it is possible now to publish complete figures of the work done by the Division of Municipal Engineering since its organization in July, 1904. During that period there had been laid, on November 1, in the city of Panama, 11.30 miles of water pipe of various sizes, 5.12 miles in the city of Colon and 42.80 miles in the Canal Zone, making a total of 59.22 miles. During the same period there had been laid in the city of Panama 17.40 miles of sewer pipe, in Colon 5.80 miles, and in the Canal Zone 29.15 miles, a total of 52.35. In Panama 1,843 house connections had been made and in Colon 849. There had been 134 fire hydrants placed in Panama and 54 in Colon.

During the same period there had been laid in Panama 5.12 miles of brick pavements comprising 63,764 square yards, in streets ranging in width from 13 to 35 feet; 3.03 miles of concrete and macadam pavements, comprising 67,625 square yards, in streets ranging in width from 8 to 30 feet; and 10.4 miles of curbing had been placed. In Colon 2,721 lineal feet of brick pavement, comprising 6,410 square yards, had been laid; 3.24 miles of macadam pavements, comprising 39,603 square yards, in streets ranging in width from 14 to 44 feet; and 7.3 miles of curb and gutters had been installed.

The fire protection furnished to the cities of Panama and Colon is equal to that supplied to cities of similar size any where in the world. Two fires have recently occurred in Colon in frame buildings entirely surrounded by similar structures, and in each case the water supply has been so abundant that the fire has been confined to the buildings in which it originated, thus saving a large amount of property from destruction.

Package Deliveries.

The following statement shows the number of packages of Commissary and food supplies, including ice and containers of sterilized water, delivered during the month of November by the Department of Labor, Quarters and Subsistence, to hotels, messes, kitchens and quarters.

District.	Com's'y, food and ice to quarters.	Com's'y, food and ice to hotels, messes and kitchens	Sterlized water to quart'rs, hotels, and messes.
La Boca...........	3,528	868	....
Ancon............ ..	4,419	1,295	....
Corozal...........	1,934	576	....
Pedro Miguel...	1,788	557	....
Paraiso...........	2,542	2,946	....
Culebra...........	9,786	1,580	5,980
Empire...........	12,800	1,410	5,660
Las Cascadas..	2,469	648	1,480
Gorgona	5,096	1,703	6,175
San Pablo........	120	1,700	....
Bas Obispo......	939	938	984
Tabernilla........	968	1,747	715
Gatun......	5,744	2,239	2,994
Total.........	52,133	18,207	23,888

Gatun Steam Shovel Work.

The maximum daily output for the six working days ending December 14, was made on Thursday, December 12, the total number of cubic yards, car measurement, being 7,106.

NOTES OF PROGRESS.

(Continued)

an average of 1,421 cubic yards per shovel, and for the same period there was loaded by steam shovels 113 and 114, at the spillway site, Gatun, 18,192 cubic yards of material, car measurement. The largest day's loading for both shovels was on the 11th, when 3,192 cubic yards were taken out. Shovel 114 made the largest output for any one day during the week, loading 1,860 cubic yards on the 10th.

Work of the Mechanical Division.

The monthly report of the Mechanical Division for November, shows that there were in Commission service 204 locomotives, of which 22 were given shop repairs, there were also 1,136 running repairs to locomotives. There were 2,397 freight cars in Commission service and 653 used by the Panama railroad. Repairs to cars in Commission service numbered 7,871. Sixty-three steam shovels were in Commission service and 3 in use by the Panama railroad. Five shovels were given shop repairs. The cost of running repairs to steam shovels was about double the cost of shop repairs.

The iron foundry turned out 329,029 pounds of casting at a total cost for material and labor of $.0428 per pound. The brass foundry turned out 11,853 pounds of casting at a cost of $.202 per pound. The Division handled 7,912 tons of coal at a cost of $.053 per ton; 5,042 engines were hostled at an average cost per engine of $1.87. The cost per engine, for hostling, varied from $.81 at Gorgona to $3.51 at Bas Obispo.

Work was continued on ten old French locomotives and 50 old French dump cars, in order to put them in condition for service.

Electric current amounting to 82,530 kilowatts was generated at a cost of $.0448 per K. W. hour. The number of men at work on November 30, was 2,424, of whom 955 were on the gold roll.

Panama Steamship Reservations.

The General Manager of the Panama Railroad Company wishes to announce to all travelers on the steamships of the company, that accommodations can be reserved on steamers, for any specified date, but that tickets will be issued by the ticket agent in the order in which they are applied for, and if the applications for tickets exceed the unreserved accommodations on the steamer, the ticket agent is authorized to apportion enough reservations unsecured by tickets to meet the demand. To further accommodate passengers, tickets can be secured in advance at any time after the arrival, at Cristobal, of the steamer on which passage is desired.

Dredging at La Boca.

The maximun daily output by the three dredges of the La Boca Dredging Division for the week ending December 21, scow measurement, was as follows: December 17, dredge A-2, 7,184 cubic yards; December 16, dredge 14, 6,280 cubic yards; December 18, dipper dredge, 4,200 cubic yards. The total output of each of the three dredges for the same period was: Dredge A-2, 38,971 cubic yards; dredge 14, 34,089 cubic yards; dipper dredge, 22,430 cubic yards.

No Third Term for the President.

On the evening of December 11, following the action of the National Republican Committee in fixing the time and place for holding the next Republican National Convention, President Roosevelt issued from the White House the following authoritative statement:

"On the night after election I made the following announcement:

'I am deeply sensible of the honor done me by the American people in thus expressing their confidence in what I have done and have tried to do. I appreciate to the full the solemn responsibility this confidence imposed in me, and I shall do all that is in my power not to forfeit it. On the 4th of March next I shall have served three and a half years, and this three and a half years constitute my first term. The wise custom which limits the President to two terms regards the substance and not the form, and under no circumstances will I be a candidate for or accept another nomination.'

"I have not changed and shall not change the decision thus announced."

The Republican National Convention will be held at Chicago on June 16, 1908, and the Democratic National Convention at Denver, Colo., July 7, 1908.

Proposals for Buildings.

Proposals will be received by the Chief of Division of Material and Supplies, at Cristobal, until December 28, at 2.30 p. m., for the erection by contract of two type No. 14 and one type No. 18, quarters at Ancon. The material will be furnished by the Government on the site. Buildings will be similar to those already erected of these types. Plans and specifications can be seen in the office of the Chief Engineer, at Culebra, and will be furnished upon application. A deposit of $5 is required for a copy of the plans and specifications which will be refunded upon the return of same.

Bas Obispo Club.

THE CANAL RECORD:

Will you kindly publish the following in THE CANAL RECORD:

At a recent meeting of the Bas Obispo Club the following officers were elected to serve for six months: G. G. McNamera, president; George Campbell, vice president; A. O. Blake, treasurer; M. Williner, secretary; S. W. Pike, chairman house committee; A. W. Fox, chairman entertainment committee; John Steibaugh, chairman athletic committee.

It is the intention of the club to give a dance or smoker every month, besides creating various other amusements for the entertainment of its members.

The ladies of Bas Obispo will also shortly organize a club, and on Christmas Eve they will tender to the gentlemen of Bas Obispo a Christmas tree entertainment. The Christmas tree will shortly arrive from the States, and Santa Claus, who recently arrived, will be there to distribute the presents to all the children and bachelors. It is rumored that there are to be some home made cakes and judging from the way the ladies are meeting and making preparations it no doubt will be a successful affair.

M. WILLINER,
Secretary.

Bas Obispo, Dec. 11.

Murder at Paraiso.

Philip F. Kramer, of Portland, Oreg., a locomotive engineer in the employ of the Isthmian Canal Commission, was found dead in bed in his room at Paraiso on the morning of December 17. His head was crushed as if from a heavy blow and he had apparently been instantly killed while asleep. Robbery is the only motive assigned as he was known to carry considerable sums of money about his person and it is thought he had several hundred dollars in a valise in his room which was found cut open and rifled. Mr. Kramer was about 41 years old and had been married. His daughter, Lucy C. Kramer, lives at Portland, Oreg. He was a member of the Brotherhood of Locomotive Engineers and of the Independent Order of Red Men. These organizations also offer a reward of $500 in addition to the reward offered by the Commission, printed below. The police are working on the case and have several suspicious characters under surveillance.

$500 Reward.

The above amount will be paid by the Isthmian Canal Commission for information leading to the arrest and conviction of the person or persons who assaulted and killed Philip F. Kramer, an American locomotive engineer, in his quarters at Paraiso, in the Canal Zone, between 8 p. m. December 16 and 6.30 a. m. December 17. The motive of the murderer was evidently robbery. The sum obtained is not known; it was possibly over $500 in bills and gold.

Outside the house where Mr. Kramer was killed while asleep, there was found a pair of shoes, supposed to have been left there by the guilty person or persons. The shoes are of cheap black leather, size No. 8, medium-pointed toe, with sewed caps, and home-made canvas cloth shoe-strings about 30 inches long. Each of the shoes has a hole cut on the outside, apparently to releave the pressure on corns on the small toes.

The holes are about one inch long and one-half inch wide, with ragged edges. The shoes are covered with grease or oil, and apparently were worn by some one who used or worked around machinery, engines or boilers. They are now at the Paraiso police station, where they may be inspected. Any information as to their ownership, or bearing at all on this dastardly murder of a Commission employe, should be immediately communicated to the Chief of Police at Ancon.

Ancon, C. Z., Dec. 19, 1907.

GEO. R. SHANTON,
Chief of Police.

Approved: D. D. GAILLARD,
Acting Chairman,
Isthmian Canal Commission.

Mineral Rights on the Isthmus.

THE CANAL RECORD:

Will you kindly inform me, through THE CANAL RECORD, if a private American company would be permitted to own and operate a gold mine within the limits of the Canal Zone, and if so, to whom application for concession of mineral rights may be made.

WALTER L. G. PERRY.

Culebra, C. Z., Nov. 27.

[This question will have to be submitted to the Isthmian Canal Commission for action.]

SOCIAL LIFE OF THE ZONE.

Zone Children Enjoy Christmas Celebrations.

No prettier celebration of the winter festival has been held in the Zone than that of the Ancon school on December 20. The room of the elder classes was decorated with palms, ferns and other tropical plants, the exercises consisting of songs and recitations, being held in the morning. Later in the day the little ones had their celebration in their room which was decorated with festoons of paper chains terminating in a Christmas ball, all made by the children. The exercises consisted of Christmas songs, dialogues and recitations, including a fairy play, "The Spirit of Christmas." A number of prominent Ancon residents were present.

The celebration at Gatun has been arranged to take place Christmas eve. It is under the direction of the Sunday school and the woman's club. The arrangement of the program is in the hands of Miss Gorman, Mrs. A. B. Shippee and Mrs. H. K. Higgins. Mrs. N. M. Johnson has charge of the music and the woman's club will provide the refreshments. All the school children will take part. The program consists of Christmas carols, recitations and several fancy drills by the children. Each child will receive a suitable gift. The club held its regular meeting December 20, with a good attendance.

The complimentary concert given by the Cristobal Woman's Club, December 18, was thoroughly enjoyed by a large number of members and their friends. The program was arranged by the art and literary department, under the chairmanship of Mrs. E. Lewis Baker.

The Culebra Woman's Club held its regular meeting December 19, with Mrs. Wm. L. Sibert in the chair. The afternoon was devoted to social entertainment. Mrs. Murray sang several selections and tea was served. Mrs. Moore was appointed chairman of the committee on refreshments and the following members were elected to represent the club as delegates at the Federation meeting at Cristobal: Mrs. James Murray, Mrs. Samuel Perry, Mrs. F. B. Byram, and Mrs. E. M. Puller. The work of the club was discussed and arrangements for the future made. The club is arranging for an old-fashioned dance to be given on New Year's eve.

The Gorgona club, which is one of the largest in the Federation, continues its good work to the sick. Preparation for a Christmas program are completed. The celebration will be held at the Commission club house where the tree will be and Santa Claus is expected to pay his annual visit to the children.

The Ancon club held its meeting December 18, the occasion being marked by a reception to the president, Mrs. Wm. C. Gorgas, on her return from a short visit to the States. The committee on the formation of a club library reported successful canvassing for books to be contributed by club members and the library will be ready for circulation about the beginning of the new year. The donation of a book suitable for circulation, from the members of the club, constitutes membership in the library. The club is arranging for a flower dance to be given some time in February. A committee, with Mrs. E. F. Quimby as chairman, has the entertainment in charge, and arrangements will be completed within a short time. Several interesting talks have been promised for the near future. Col. W. C. Gorgas has promised an address, Mrs. Herbert G. Squires, recently elected a member of the club, will read a paper on the "Siege of Pekin," and the Ven. Archdeacon Bryan will read a paper on "Travels in England" The club will assist at the Christmas celebration for the children at the Protestant chapels in the hospital grounds on December 28. A tree had been donated for the occasion and invitations have been extended to the children of Ancon, La Boca and Corozal.

The delegates elected to attend the Federation meeting are Madame Le Prince, Mrs. Pelham Bates, Mrs. E. F. Quimby and Mrs. Charles Boxer.

The Paraiso Club held its regular meeting December 16, the president, Mrs. J. C. Barnett, being in the chair. Mrs. Wm. L. Lowe having resigned the office of secretary, Mrs. W. A. Heath was elected to the office for the unexpired term. The club will give a dance New Year's eve, when invitations will be extended to the Pedro Miguel Club.

The Las Cascadas Club shows an increased membership at each meeting and much interest is felt in forwarding the social work of the organization. Mrs. Walraven entertained the members of the club at a luncheon December 19. Arrangements have been made for a bazaar to be given at the club rooms December 28.

A request for the names of the presidents and secretaries of the Zone clubs to be published in THE CANAL RECORD has been made, and the list is appended in accordance with the same:

Ancon—Mrs. W. C. Gorgas, president; Mrs. T. C. Lyster, secretary; (Mrs. E. F. Quimby, secretary *pro tem.*)

Pedro Miguel—Mrs. F. R. Roberts, president; ——, secretary.

Paraiso—Mrs. J. C. Barnett, president; Mrs. W. A. Heath, secretary.

Culebra—Mrs. Wm. L. Sibert, president; Mrs. W. H. Butler, secretary.

Gorgona—Mrs. Frank Morrison, president; Mrs. D. E. Hayes, secretary.

Empire—Mrs. F. M. Miracle, president; Mrs. I. F. McTyier, secretary.

Las Cascadas—Mrs. O. R. Randall, president; Mrs. Wm. Boregard, secretary.

Gatun—Mrs. Chester Harding, president; Mrs. A. B. Shippee, secretary.

Cristobal—Mrs. Lorin C. Collins, president; Mrs. E. Lewis Baker, secretary.

Canal Zone Federation of Women's Clubs.

The officers of the several clubs and the delegates selected to represent the clubs at the meeting in Cristobal on January 4, are hereby informed that through the courtesy of the Commission a special car for the use of those officially attending the Federation meeting will be attached to train No. 2 leaving Panama on that date at 6.35 a. m. and returning on train No. 7 leaving Colon at 4.35 p. m. This carries with it free transportation for the officers and delegates from the clubs at the various points on the line.

ELIZABETH R. BAKER,
Corresponding Secretary,
C. Z. Federation.

PERSONAL.

Among the passengers on the *Dunottar Castle* which arrived at Cristobal December 20, were Mrs H. J. Slifer and family; Mr. and Mrs. E. J. Williams of Empire; Mrs. M. B. Irwin, Superintendent of Nurses, Ancon hospital, and Mr. Pierce T. Murphy.

President Amador accompanied by Mrs. Amador, sailed from New York on the *Finance* on December 19.

Miss Russel, treasurer and head of the Philanthropy Department of the Ancon Woman's Club, has left for her annual visit to her father near Kingston, Jamaica.

Unclaimed Packages.

The following is a list of packages that have been forwarded from New York to Isthmian Canal Commission and Panama railroad employes, and that are waiting to be claimed at the freight house at Colon. Applications of claimants should be made through the freight agent, R. C. Crutchley:

Way-bill No. 144—Chas. E. Alden, 23 packages household goods, ex *Colon*, Dec. 3, 1907.

Way-bill No. 142—J. Henry Baird, 1 case clothing, ex *Colon*, Dec. 3, 1907.

Way-bill No. 146—M. C. Benson, 1 crate sewing machine, ex *Advance*, Dec. 9, 1907.

Way-bill No. 146—Arthur Boyd, 4 crates furniture, ex *Advance*, Dec. 9, 1907.

Way-bill No. 146—W. A. Brennan, 1 crate sewing machine, ex *Advance*, Dec. 9, 1907.

Way-bill No. 146—Zephamoho Brown, 1 box electrical goods, ex *Advance*, Dec. 9, 1907.

Way-bill No. 142—D. Clarke, 1 box sewing machine, ex *Finance*, Nov. 29, 1907.

Way-bill No. 146—Mrs. Chas. R. Campbell, 1 case notions, ex *Advance*, Dec. 9, 1907.

Way-bill No. 142—H. Dyer, Gatun, 1 box dry goods, ex *Finance*, Nov. 29, 1907.

Way-bill No. 146—I. Norencio Galmdo, 1 tierce tinware, ex *Advance*, Dec. 9, 1907

Way-bill No. 142—Joseph Hermer, 1 case groceries, etc., ex *Finance*, Nov. 29, 1907.

Way-bill No. 144—W. Henderson, 1 case notions, ex *Colon*, Dec. 3, 1907.

Way-bill No. 142—B. Linton, 1 box gramophone, ex *Finance*, Nov. 11, 1907,

Way-bill No. 142—R. Lovelli, 1 case musical instruments, ex *Finance*, Nov. 29, 1907.

Way-bill No. 144—Jerry Lushington, 1 package, ex *Colon*, Dec. 3, 1907.

Way-bill No. 144—Mrs. J. J. Luckey, 1 case household goods, ex *Colon*, Dec. 3, 1907.

Way-bill No. 144—John Murphy, 1 trunk effects, ex *Finance*, Nov. 29, 1907.

Way-bill No. 142—B. F. Sisson, 1 box society supplies, ex *Finance*, Nov. 29, 1907.

Way-bill No. 142—R. P. Woodson, 1 package clothing, ex *Finance*, Nov. 29, 1907.

Way-bill No. 144—C. A. Wilson, 1 case elastic webbing, ex *Colon*, Dec. 3, 1907.

No. 7,328—J. G. Barrett, 1 parcel, ex *Finance*, Nov. 29, 1907.

No. 7,343—J. G. Barrett, 1 parcel, ex *Finance*, Nov. 29, 1907.

No. 7,321—J. M. Chimacriro—1 parcel, ex *Dunottar Castle*, Nov. 24, 1907.

No. 7,165—Victor E. Lopez, 1 parcel, ex *Colon*, August 18, 1907.

No. 7,216—Victor E. Lopez, 1 parcel, ex *Panama*, Sept. 24, 1901.

No. 7,178—Rev. Thos. H. Spence, 1 parcel, ex *Advance*, August 25, 1907.

No 7,232—J. W. Foulks, 1 parcel, ex *Dunottar Castle*, September 30, 1907.

Way-bill No. 122—John Burke, 1 case canvas tent, ex *Panama*, September 24, 1907.

Way-bill No. 111—S. G. M., Cristobal, 1 box hardware, ex *Advance*, August 25, 1907.

Way-bill No. 126—Thos. A. Morant, 1 box false jewelry, ex *Colon*, October 10, 1907.

Way-bill No. 101—H. W. Otis, 1 barrel notions, ex *Panama*, August 2, 1907.

Way-bill No. 136—H. T. Kenve, 1 crate sewing machine, ex *Colon*, November 7, 1907.

The sea-going suction dredge *Culebra*, which sailed from Sparrows Point, Md., on October 9, for La Boca, reported her arrival at Callao, Peru, on December 17, with all well on board.

CHANGE IN CANAL PLANS.

Special Report of the Chairman of the Commission to the Secretary of War, Recommending Locks and Dams at Miraflores Instead of at La Boca—President Approves Change.

December 9, 1907.

The Honorable Wm. H. Taft,
The Secretary of War,
Washington, D. C.

Sir: The adopted plan for the building of the Panama Canal contemplates the formation of a lake on the Pacific side by the construction of three earth dams (Sosa-Corozal, Sosa-San Juan and Corozal-Diablo), the differences of level between the lake and the Pacific being overcome by a flight of two locks projecting into the Pacific on the west side of Sosa Hill.

The Board of Consulting Engineers that accompanied you to the Isthmus in April last, inspected the sites of the dams, as finally located, with the view to outlining a detailed description of the preparation of the foundations for the structures to be erected, reporting thereon as follows:

> The borings showed so-called mud in the swampy portion, having a depth of 8 or 10 feet. This material is firmer than we had expected, and at the time of our visit, about two days after it had been flooded by spring tides, it could be walked on in most places. * * *
>
> For the dam construction * * * we do not think it will be necessary to remove the soft material at either of these places (Sosa-Corozal, Sosa-San Juan.) The very softest material will either be displaced or consolidated by the material disposed on it. We do not think the amount displaced beneath the impervious portion of the embankment will be great, and if compressed in place the material will be impervious.

As regards the character of the material that should compose the body of the structures, the same Board reported:

> For the Sosa-Corozal and La Boca dams the bottom width of the impervious portion should not be less than would result from a top width of 80 to 100 feet at 15 to 20 feet above the water level in the lake, with slopes not steeper than 1 on 4 to 1 on 5. The resulting width at sea level would be 640 feet or more. The comparatively small cross section suggested for the impervious portion of each of the Pacific dams is permissible only if it is reinforced by wide and heavy rock embankments on both sides. * * * On account of the nature of the bottom on which this rock fill will be deposited for the dams on the Pacific side, it should extend a long distance outside of the impervious portion in accordance with the principle adopted for the La Boca dam by the minority of the Board of Consulting Engineers in 1905-6, of spreading the base on soft bottom so that the change in weight imposed on the foundations from the toe towards the crown will be gradual. This protection at the Sosa-Corozal and La Boca dams may be given great width with economy since they will afford convenient dumps for the Culebra material.

To construct the dams in accordance with these views, trestles were built along the toes of the Sosa-Corozal dam, from which to dump material from the Culebra Cut. The trestles failed, after the dumping of the material from them began, and the material overlying the rock moved laterally carrying the superimposed mass with it, the dumps flattening out until the side slopes were about 1 on 12 and even less. In places this lateral motion continued for two weeks after dumping had stopped. The ground on either side of and at some distance from the dump was forced up forming mounds of mud, the crests of which gradually approached the level of the top of the dump proper. After an equilibrium was established between the dump and the adjacent mounds, the hump or wave would again move out when the track was shifted towards it, accompanied by a sudden vertical settling of the track of six to ten feet when loaded trains were applied. It was thought that if the trestle were lower, better results might obtain, but with the west trestle only 8 feet above the surface of the ground and the piles driven to rock, similar failures followed.

When the difficulties on the east trestle developed, an investigation, by boring and test pits, was made to determine the character of the material overlying the rock. It was found to be for the greater part an unctuous blue clay without grit, possessing but little supporting power, instead of stiff clay as indicated on existing profiles.

The investigations clearly demonstrate that the construction of dams which would remain in place after the lake is filled can be accomplished only by the removal of all material overlying the rock, and, after preparation of the rock surface, by building the dams of selected material. The depth to which the material will have to be removed is from 10 to 70 feet, and suitable material for dam construction will have to be transported to the site. Investigations of the foundations of the Sosa-San Juan dam show that the material is the same; the difficulties to be encountered will be greater because of the river.

It is estimated that the cost of building the two dams, following the plan that the investigations and work done indicate as necessary, will be about $11,573,800. The estimate submitted by the minority of the Board of Consulting Engineers for these dams is $4,314,000, a difference of $7,259,800.

As this difference to secure stability is excessive, an examination of the Canal route from Pedro Miguel to the Pacific was undertaken to ascertain if more suitable places for the locks and dams could be found. In making these examinations care was taken to secure samples of the materials to be encountered at various depths and cores procured of the rock. A careful study was made of all data obtained and four possible projects present themselves for constructing that portion of the Canal extending from the south end of Culebra Cut to deep water in the Pacific ocean.

First project—This is the present project and consists of one lock at Pedro Miguel and two at La Boca, with dams of suitable material on rock. The estimates submitted by the Board of Consulting Engineers are corrected to conform to methods, quantities and unit prices that additional information and experience show will give more nearly the actual cost of the work. The project provides a 500-foot channel from Pedro Miguel to Miraflores, a 1,000-foot channel through Sosa lake to La Boca, and a 500-foot channel from La Boca locks to deep water.

Second project—Two locks at Pedro Miguel and one at Miraflores, with a 500-foot channel through the lake from Pedro Miguel to Miraflores, and a 500-foot channel from Miraflores to deep water in the Pacific ocean.

Third project—One lock at Pedro Miguel and two at Miraflores with a 500-foot channel through the lake from Pedro Miguel to Miraflores, and a 500-foot channel from Miraflores locks to deep water in the Pacific ocean.

In this and in Project No. 2, provision is made for diverting the waters of the Rio Grande and the Corundi and the Cocoli rivers, as well as for a channel of uniform width to the sea, having no connection with any other tidal basin; as a consequence the currents in the channel will result only from the tidal flow and will not attain a velocity as great as one foot a second, which will not interfere with navigation.

Fourth project—One lock at Pedro Miguel, one at Miraflores and one at La Boca, with 500-foot channels between locks and to deep water in the Pacific.

In each case, locks and dams are on rock foundations. Assuming that inverts are used, the total costs of the various projects are as follows:

Project No. 1	$58,395,540
Project No. 2	58,467,048
Project No. 3	50,927,268
Project No. 4	66,690,618

From the foregoing it is seen that Project No. 3, one lock at Pedro Miguel and two at Miraflores, is the most economical. It has the advantage over the present project in that the dams of lower height, less length, and resting on rock comparatively near the surface can be more easily constructed, and completed at an earlier date. It is to be preferred to Project No. 1 by reason of the fact that the location of the locks secures them against all possibility of distant bombardment and affords them greater security against gunboat or torpedo boat attack.

The Commission unanimously recommends the adoption of Project No. 3 and its substitution for the existing project.

Very respectfully,
[Sgd.] GEO. W. GOETHALS,
Chairman.

The President approved the recommendation of the Commission, that Project No. 3 be adopted in place of Project No. 1, on December 20.

Acacia Lodge No. 50, F. & A. M.

THE CANAL RECORD:

The abovementioned lodge was successfully opened on the evening of the 8th instant, and a hearty invitation is hereby extended to all F. & A. M.'s in the employ of the Commission both in Panama and Colon, as well as those along the line. Regular meetings will be held every Saturday evening at 7.30 p. m. at the lodge rooms, No. 62 North avenue, Panama, above Endara's photographic gallery.

C. BERTONCINI, S. W.

Panama, Dec. 13.

Concert.

By the I. C. C. Band at Culebra, C. Z., Sunday, December 29, at 2.15 p. m.:

PROGRAM:

1 March	*Under the Double Eagle*	Wagner
2 Selection	*Woodland*	Luders
	BY REQUEST.	
3 Sand Dance	*Moonlight on the Suwanee*	Friedman
4 Morceau	*Narcissus*	Nevins
5 Piccolo solo	*Canary Polka*	Read
	OLIVER KIMBALL	
6 Medley selection	*George Washington, jr.*	Cohan
7 Flower song	*Venetian Roses*	Friedman
8 Overture	*Sunlight and Showers*	Flath
9 Characteristic	*Indian War Dance*	Bellstedt
10 March	*Dixie Blossoms*	Wenrich

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Hotel Tivoli, January 5, 1908

MATACHIN.

An Interesting History of the Name, Written for The Canal Record by General Davis, First Governor of the Canal Zone.

It may seem almost heartless to shatter and destroy the beliefs of the oldest as well as the youngest Isthmian inhabitants respecting the history of the name of Matachin, which is known to all Panamanians as that of a station on the line of the Panama railroad.

We have all been told of the dreadful mortality that attended the making of this railroad—one dead man for every cross-tie on the whole line. We were expected to believe this yarn, and most of us did, but when one reflects that the road was 47½ miles long, the number of ties, 22 inches apart and allowing for sidings, the whole would mount up to quite 140,000. F. N. Otis, in his "Handbook of the Panama Railroad," published in 1861, states that from the beginning of construction in August, 1850, to the driving of the last spike in January, 1855, or less than four and one-half years, the largest number of laborers employed at any one time was 7,000, and this number was not reached until 1852, or after.

There was no city or even a village at Colon at that time, and Otis says the population of Panama in 1861 was only 10,000. He also asserts that from the opening of the road for through traffic in 1855 to 1859, a period of four years, 196,000 passengers crossed the Isthmus by rail, "and it is not known that a single case of sickness has occurred during or in consequence of the transit."

In view of these facts we may well believe that the "yellow journals" of that period are the best authority that exists for the extravagant statements of mortality resulting from the construction operations—statements that were given world-wide publicity and are still accepted as fact.

It is well known that many laborers were imported and used on this first large Isthmian work. There were some Chinamen included, and we have been told that these Orientals were overwhelmed with melancholy and suicided by the hundred—hari-kari, drowning, and by throwing themselves in front of passing locomotives; and in crowning, indubitable proof of this, it is asserted that the site of one of these Chinese camps where the wholesale suicide occurred was given a name appropriate to the action recorded by it, *i. e.*, "Dead Chinamen," or, in the language of the inhabitants, "Matachin," a railroad station near Gorgona.

I have made some investigations as to the pedigree or etymology of this name. In any good Spanish-English dictionary will be found the word "matachin," meaning "butcher," as "matadero" means a "slaughter house."

But this alone would not be proof to those who accept the other as the better definition. It is easy to prove, however, that the name is a geographic one, for as applied to this locality it is hundreds of years older than the road-making.

In 1678, or seven years after the exploit of Morgan in the capture and sacking of old Panama, there was published in Holland by Esquemeling, a book entitled "Buccaneers of America." This was translated into English and published by William Crooke of London in 1684. One chapter is devoted to a description of Morgan's raid, and one of the illustrative plates in this first edition of Esquemeling is a map of the Isthmus, including, on the Caribbean side, the coast from Porto Bello to beyond the mouth of the Chagres, while on the Pacific it covers the coast from old Panama to Penononee and Nata, and served to make plain the operations of Morgan in his previous capture of Porto Bello and the assault and capture of Fort San Lorenzo at the mouth of the Chagres, the trip up the Chagres and across the highlands to the goal of the expedition —the city established by Pedrarias in 1519. The artist attempts to show a distribution of the Buccaneers, their marches; and the scene is also depicted of the turning loose upon the "pirates" of the herd of wild bulls.

As a work of actual topographical delineation the map has little merit, for the distances and the relative positions of well known physical features are in no true relation one to the other, yet the map is most interesting in many ways. The Chagres and all of its principal tributaries are shown; the Rio Grande, Caimeto, Capira and Nata are all marked and named, as are also the settlements, Porto Bello, Chagres, Cruces, Chamé, Penononee, Cocli and Nata. Along the Chagres from its mouth to Cruces probably fifty names appear of bends, landings, islands and ranches. Here we find Barbacoas, apparently the name of a hill. That monkeys were playful in those early days is evident, for Baile-monos is marked. The incident—hanging of an alligator—seems to have occurred during or before the seventeenth century, for Ahorca Lagarto is shown, and strangest of all, spelled exactly as now, is Matachin, and at just about the place that answers to this railroad station.

This map, be it remembered, was made in 1678, or earlier, and was republished in England in the English edition in 1684, so that more than two hundred years before the Chinese tired of life on the Isthmus (if they ever did), the name which is cited as proof of their self-destruction was known to the Buccaneers and doing business. It may have been the stopping place where the butcher, whose occupation it designates, supplied the weary travelers with fresh meat.

Is there any more truth in the yarn this name has been made to embellish than in the assertions in the "yellow journals" of 1850–55? The map-maker does not omit to delineate Limon Bay, as we call it now, but a few years ago it was Navy Bay, a name which has probably been evolved from one which Columbus was said to have bestowed upon this body of water. On Esquemeling's maps it is marked P. Naos, meaning Puerto Naos, *i. e.*, "ship port," for *nao* is the Spanish for ship. Another spelling is *nave* and the plural *naves*. It is not difficult to guess that "Navy Bay" has been evolved from Puerto Naos or Puerto Naves, for we know that in the fifteenth and sixteenth centuries all vessels were armed, fighting ships, and there were no other naval vessels than such as traded, explored and raided, or pirated over and beyond the oceans.

The inspection of this map was most interesting and it has seemed that the statement of the fact respecting the pedigree of the word Matachin will be interesting to many Canal employes who have visited this place made memorable by the notable events transpiring on the Isthmus hundreds of years ago.

Geo. W. Davis.

Washington, Nov. 29, 1907.

OFFICIAL CIRCULARS.

Hotel and Commissary Books.

All Concerned:

Referring to the issuance of Hotel and Commissary books to employes of the Isthmian Canal Commission, and complaints which have been brought to my attention, relative to delays in delivery by timekeepers or others responsible for this work.

In order that a uniform method may be in force in all departments, the following rules shall govern in all cases:

Hotel and Commissary books shall be issued to employes at any time after the fifth day of the month, up to and including the twenty-seventh day, subject to the provisions of Circular No. 103, authorizing issuance only for the amount actually due the employe, and up to a stated limit of the monthly pay. No books will be issued to any one before the fifth or after the twenty-seventh of any month, in order to give the timekeepers time to take care of payrolls, etc., and all employes should be governed accordingly.

Applications for Hotel and Commissary books must be filled out, whenever a book is desired, on request blanks, Form No. 145 C. E., which may be obtained from the Stationer and Printer on regular requisition. A supply of these should always be on hand for distribution to employes by foremen and timekeepers, or at time offices, as may be most convenient, and should in all cases be sent to the time offices by the individuals charged with such duty at stated hours, at least once every day. Books should be prepared and delivered to applicants at once, at the most convenient place, and in no case must delivery be delayed more than three days from the date of the request.

Timekeepers or others charged with issuing Hotel or Commissary books must not receipt for same in the name of the employe to whom issued, and the employe shall not be charged with the book until it is delivered to him and receipt signed either by signature or mark properly witnessed.

D. D. Gaillard,
Acting Chairman.

Culebra, Dec. 13

Time Lost on Account of Rain.

To All Concerned:

My attention has been directed to the unfair advantage being taken of the circular of this office providing for the allowance of time lost on account of rain. Hereafter laborers will be allowed only such time as they actually work.

Geo. W. Goethals,
Chairman and Chief Engineer.

Culebra, Dec. 7.

Panama Railroad Company.

To Heads of I. C. C. Departments:

Will Heads of I. C. C. Departments kindly take notice that it is necessary that five copies of store invoices made out by the P. R. R. Co., be returned to the Storekeeper. Several departments during the past month have been retaining from two to three copies. It is imperative that this practice be discontinued. I would be pleased to furnish blank invoices to any I. C. C. Department making requisition for them, upon which they can make out as many copies as they like for their files.

E. L. Hubbard,
Storekeeper.

Cristobal, Dec. 13.

The total output of the La Boca dredging division from December 1 to December 21 was: Dredge A-2, 113,819 cubic yards; dredge 14, 105,915 cubic yards; dipper dredge, 39,430 cubic yards.

COMMISSION BUILDINGS.

II.

Buildings Erected for Laborers and "Silver" Employes.

By P. O. Wright, Jr., Architect.

In providing buildings for the use of laborers or "silver" employes engaged in the construction of the Canal, special consideration has been given to their design with a view of meeting the requirements of the different nationalities and their habits of living. This applies both to the married and single employes.

Special consideration has also been given to the sanitary features of these buildings as well as to the location of them, also to the methods of protecting the mosquito screening, the doors and the windows, against careless and especially against willful injury.

The following buildings are provided, where the conditions will warrant their erection, in each of the many encampments scattered along the line of the work from Colon to Panama: Bachelor quarters or barracks; married quarters; bath houses for colored and for European employes; laborers' kitchens and Gallegos' mess halls; automatically flushed range closets for men and for women; dry and wash rooms; and sick camps. The sick camps are for the immediate care of sick employes until their removal to the hospital.

In addition to the above buildings, which are intended principally for the encampments of laborers employed in the actual work of digging, there are certain other types of buildings erected for the employes connected with hotels, hospitals, etc. These buildings are constructed in the cheapest possible manner consistent with their uses and are all provided with sanitary plumbing. Among the types may be cited the following:

Ward maids' quarters for the hospitals; orderlies' quarters for the hospitals; quarters for the hotel servants, both one and two-story buildings; and quarters for the help of commissaries.

QUARTERS FOR UNMARRIED EMPLOYES.

As living quarters for the unmarried employes, five types of barracks have been built. It has been found by experience that two of this number answer all of the purposes required and construction is therefore now confined to these two types. They are designated as "Standard Laborers' Barracks Nos. 1 and 2," both having practically the same arrangement but differing in size. The standard barracks No. 2 is a one-story building, consisting of a dormitory 35 feet wide by 50 feet long, with verandas 8½ feet wide at each end. The upper portions of the walls of the dormitory are left open for a distance of 3 feet below the ceiling line for ventilation, and the roof is provided with a large ventilator. This opening is protected against rain by the projection of the roof, and is screened like the verandas with fine copper mosquito screening. The windows are provided with screens incapable of being opened and with batten shutters opening inward. The screening of verandas as well as of the doors is protected against careless or willful injury by slats placed for a sufficient height to accomplish this. There are never more than two entrances to the building, one at each of the screened porches, thus reducing to a minimum the chances of the introduction of mosquitos. These barracks are provided with cots or standee berths and are intended to accommodate 40 to 80 men, allowing an average of 560 cubic feet of air per man. In case it should become necessary to increase the number of men, there is always a sufficient supply of fresh air on account of the circulation produced by the openings at the top of the walls, the end verandas and the ventilator, so that in any case, no matter what the crowding might be, the air could not become foul.

In order that the employes may have clean and dry clothes, the present Commission has been erecting buildings in the encampments where the laborers can do their own washing and have their clothes dried by steam. This arrangement is not only a great convenience which is appreciated by the men, but a precaution which greatly minimizes the sickness.

KITCHENS AND MESS HOUSES, ETC.

Food for the laborers is provided and dispensed in two types of buildings, a standard kitchen for the West Indians and a mess hall and kitchen for the European or Spanish laborers. The standard kitchen is a building 18 feet wide by 36 feet long having a concrete floor which can be washed out daily. Walls of corrugated, galvanized iron are provided on three sides while the fourth is left entirely open and has a wide shelf or counter running the entire length of the building. Here the laborers line up and receive their food. Above the top of the three walls of corrugated iron there is an air space three feet high, the opening being protected from rain by the projection of the roof. With this arrangement the kitchens are always cool and can be kept in an absolutely sanitary condition. The Europeans' mess hall provides, in addition to the kitchen, a large dining room where the laborers are served with food.

Bath houses are arranged so as to contain either ten or twenty cemented apartments for shower baths, and are located at convenient points in the encampment, as are also the range closets.

QUARTERS FOR MARRIED EMPLOYES.

The married quarters for laborers or "silver" employes are one-story buildings, long and narrow, with verandas in front and rear running the entire length of the building. The apartments usually consist of two rooms, and the veranda is utilized for cooking purposes, being provided, opposite each apartment, with a locker and an arrangement to hold a charcoal brazier. The toilets, as in the case of the bachelor quarters, are in separate buildings.

Rebekah Lodge, I. O. O. F.

The Canal Record:

Will all Sisters and Brothers of the Rebekah Degree, all Brother Odd Fellows, and all other persons eligible to receive the Degree, that wish to become charter members of the new Rebekah Lodge, I. O. O. F. to be instituted at Gorgona, communicate with me in regard to the same at your earliest convenience.

B. F. Sisson, P. G.
Dist. Dep. Grand Sire of the Sovereign Grand Lodge, I. O. O. F. for the Isthmus of Panama.

Gorgona, Dec. 19.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Burying the Pessimists.

The Canal Record:

The following is clipped from the Marysville (Pa.) *Journal* of November 21:

"Enough dirt has already been thrown out of the Panama Canal to bury half the pessimists who said it never would be dug."

Don't you think the editor is rather low in his estimate? I believe it would bury three quarters at least.

Calvin D. Eppley,
Time Inspector.

La Boca, Dec. 9.

Eagle Aerie.

The Canal Record:

Please say in The Canal Record that several Eagles met, pursuant to the call of Selby Miller, in the lodge hall at Culebra, and after a preliminary organization, consisting of Selby Miller, chairman and Ed. F. Sprague, secretary, had been made, it was decided to ask the Grand Aerie F. O. E. for a charter to organize an aerie on the Zone. and that the chairman, Selby Miller, Culebra, or Ed. F. Sprague, Culebra, would like to hear from every *Ya Ya* on the Isthmus *and at once.*

Ed. F. Sprague,
Secretary pro tem.

Culebra, Dec. 16.

Gorgona Sunday School.

The Canal Record:

Sunday, December 15, was a banner day for the Sunday school at Gorgona. Every teacher was present and there was an attendance of 57, the collection amounting to $4.66, silver. The officers elected December 1 are as follows: Harry Otis, superintendent; C. E. Whipple, assistant superintendent; Miss Orpha Hincle, secretary, and Mrs. M. T. Graves, treasurer. Mrs. Graves was also put at the head of the junior department; 46 were enrolled. The Sunday school has ordered fifty bibles, maps, and a sectional book case. A photograph of the Sunday school and church building has been taken and these will be presented to the children for Christmas cards. The Department of Labor, Quarters and Subsistence has placed 300 folding chairs in the church.

Over $200 has been collected for the Christmas entertainment and the tree is here.

M. T. Graves.

Gorgona, Dec. 16.

Special Notice to Masons.

The Canal Record:

Special notice—Friday December 27, St. John's Day, will be observed by the entire Masonic Fraternity on the Isthmus in the Y. M. C. A. club house, Culebra.

A special train will leave Colon 6 p. m. for Masons and their families *only*. Bachelors please bring ladies for the dance. Members from La Boca, Panama, Corozal, Pedro Miguel and Paraiso take regular train leaving Panama 5.30 p. m. returning by the special.

Geo. W. Strong,
Secretary,
Culebra Sojourners Club.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

There will be a bowling contest for the championship of the Y. M. C. A. at the Culebra club house on Christmas Day, beginning at 11 a.m. Entries are limited to members of the Association, and will be composed of two-men teams and individual bowlers.

CRISTOBAL.

The concert by the Ernest Gamble Concert Company, on December 17, was enjoyed by a large audience, and they have been secured for another concert on Christmas night. Major Wm. L. Seibert delivered an address before the Sunday Club on December 15. His subject was "The Locks and Dam at Gatun." Last Sunday's program consisted of a concert by the I. C. C. band and an informal talk by Mr. H. J. Slifer, General Manager of the Panama railroad. Mr. A. Bruce Minear, general secretary of the Isthmian Y. M. C. A., will address the club on December 29.

Mr. Robert E. Gourlie, of New York, has assumed his duties as assistant secretary-in-charge of physical instruction. He has had seven years' experience in this work, and classes in wrestling, tumbling, fencing, boxing, calisthenics and apparatus work will be organized as the demand warrants. A boys' department will also be formed for boys between 12 and 16 years old.

GORGONA.

Fourteen men are entered in the chess tournament, and games are played Round-Robin style. Clements holds first place, having won six games and lost two; Lagerquist is second. In the billiard tournament MacConnaghey is first and Tribalett second. In pool, Van Der Heurk is first and Wrean second In the two-team bowling team—the winners of which are to bowl at Culebra on Christmas Day for the Y. M. Y. C. championship—Sexton and Hiser are in the lead, with Lascar and Shelf second. An arc light has been installed in the rear of the building for the men interested in outdoor athletics.

On Sunday, December 29, the Rev. J. M. Sobey will give an address on "The Old and New Year."

EMPIRE.

The basket-ball game between Culebra and Empire on Monday night, December 16, was won by Empire by a score of 19 to 12. It has been decided that the tie between Cristobal and Empire for first place in the Y. M. C. A. Bowling League will be rolled off as follows: At Empire, December 21; at Cristobal, December 28, and at Culebra, January 4. A chess and checker Club has recently been organized with eighteen members. Mr. E. M. Goolsby was elected president; Mr. Wm. Stewart, vice-president, and Mr. H. C. Russell, secretary. The concert by the Ernest Gamble Concert Company on last Friday night was a decided success, and was enjoyed by a very large audience.

Christmas Services.

To accommodate those living along the Line who desire to attend the Christmas Day services at Ancon Hospital chapel at 10 o'clock, a special train, through the courtesy of the Commission, will leave Gorgona at 8.30 a. m., stopping at all the intervening stations. Returning the train will leave Ancon at 11.30. All are cordially invited.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Dec. 25, 1907.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Brown, Mrs. W. J.
Chambers, Albert L.
Christy, C. A.
Clardy, H. B.
Collins, E. H.
Daly, Thom.
Diver, Miss A. E.
Eddings, S. M.
Forsythe, Mrs. Jule
Getman, Roy
Hall, A.
Hayes, Frank C.
Hennessey, J. J.
Horner, Uriah
Ingham, Thos. J.
Kennedy, Edw. J.
La Verne, Mr. de
McLean, O. G.
Nicholson, Hubert
Pearce, Ned
Reynolds, Jos. N.
Robertson, W. O.
Robinson, Ren.
Robinson, H. M.
Robicheaux, Mrs. L. P.
Ryder, Joe
Sherman, Robert McKee
Schaulis, John A.
Stephens, H. D.
Terrell, Joe

COMMISSARY DEPARTMENT.

NOTICE.

TO HEADS OF DEPARTMENTS:

Effective Saturday, December 21, 1907, Mr. P. T. MURPHY is appointed Assistant Manager, Commissary Department.

JOHN BURKE,
Manager.

Approved:
HIRAM J. SLIFER,
General Manager.

NOTICE.

Wednesday, January 1, being New Year's Day, and a public holiday, all the Commissaries and the Commissary Department at Cristobal will be closed, with the exception of the cold storage, bakery and ice plant, from which deliveries will be made as usual.

All cold-storage orders for shipment on January 1 and 2 must be received at the Cristobal Commissary NOT LATER THAN the MORNING OF DECEMBER 31.

JOHN BURKE,
Manager.

COMMISSARY PRICES

For week ending December 15:

		Price. CTS
FRESH MEATS.		
Beef, sirloin, roast	*per lb...*	22
Beef, rump, roast	*do*	18
Beef, Porterhouse	*do*	25
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	16
Beef, rib-roast, second-cut	*do*	14
Beef, chuck-roast	*do*	11
Beef, soup	*do*	6
Beef, stew	*do*	8
Beef, corned	*do*	10, 12, 14
Beef, corned, sirloin butts, all lean,	*do*	16
Steaks, sirloin	*do*	22
Steaks, Porterhouse	*do*	25
Steaks, rump	*do*	18
Steaks, tenderloin	*do*	20
Steaks, round	*do*	12½
Veal, cutlets	*do*	21
Veal, short-cut chops	*do*	20
Veal, loin	*do*	13
Veal, entire forequarters	*do*	9
Veal, for stewing	*do*	9
Mutton, entire forequarters	*do*	9
Mutton, short-cut chops	*do*	18
Mutton, leg	*do*	14
Lamb, for stewing	*do*	10
Lamb, entire forequarters	*do*	10
Lamb, short-cut chops	*do*	22
Lamb, legs	*do*	18
Pork, cuts	*do*	20
MISCELLANEOUS.		
Livers, beef	*per lb...*	9
Sausage, pork	*per lb...*	16
Sweet bread, veal	*each...*	1.20
Sweet bread, beef	*per lb...*	25
Tripe, pickled, Honeycomb	*do*	12
Oysters, ½-gallon kegs	*each...*	70
Pigs' tongues	*per lb...*	12
POULTRY AND GAME.		
Chickens, dressed (milk-fed)	*each..*	1.10
Fowls	*do*	75
Ducks, fatted	*do*	85
Turkeys	*per lb...*	25
Broilers, frys (chicken)	*each...*	75
Squabs	*do*	35
Ducklings	*do*	80
Eggs, fresh	*per dozen*	40
Geese (about 10-lb)	*each...*	2.00
CURED MEATS AND LARD.		
Bacon, strips per lb	*per lb...*	23
Bacon, English breakfast, slic'd	*do*	§26
Ham, sugar-cured, sliced	*do*	§25
Ham, one-half (for boiling)	*do*	§26
Ham, Yorkshire (imported)	*do*	25
Hams, Westphalia	*do*	45
DAIRY PRODUCTS.		
Butter, prints, prime quality	*per lb...*	38
Cheese, Camenbert	*each...*	28
Cheese, Phila	*do*	22
Cheese, Neufchatel	*do*	6
Cheese, Roquefort.	*per lb...*	45
Cheese, Young America	*do*	22
Cheese, Swiss	*per lb...*	30
Cheese, Gouda	*do*	30
Cheese, Edam	*each...*	90
Milk	*quart*	15
FRUITS AND VEGETABLES		
Apples, fancy table	*per lb...*	8
Bananas	*per dozen*	5
Beets	*per lb..*	4
Cabbage	*do*	1½
Carrots	*do*	3½
Cauliflower	*do*	7
Celery	*bunch*	18
Cucumbers	*per lb...*	14
Grapes (3-lb. basket)	*each...*	25
Grape Fruit	*do*	3
Limes	*per hun..*	30
Lemons	*dozen*	10
Onions	*do*	2
Oranges	*per dozen*	12
Pears	*per lb...*	12
Plaintains	*dozen...*	12
Sauer kraut	*do*	3½
Squash	*do*	1½
Tomatoes	*do*	10
Turnips, yellow and white.	*do*	3
White potatoes	*do*	2

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* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from Commissaries*

NEW ARTICLES		Price. CTS.
Pans, milk, 4-qt., stock No. 38,318	*each...*	15
Pans, milk, 6-qt., stock No. 38,319	*do*	20
Pans, deep pudding, No. 16, stock No. 38,321	*do*	10
Pans, deep pudding, No. 17, stock No. 38,322	*do*	10
Pans, deep pudding, No. 18, stock No. 38,323	*do*	12
Pans, deep pudding, No. 19, stock No. 38,324	*do*	12
Pans, deep pudding, No. 20, stock No. 38,325	*do*	15
Pans, deep pudding, No. 21, stock No. 38,326	*do*	15
Pans, deep pudding, No. 22, stock No. 38,328	*do*	20
Kettles, preserving, lipped, No. 140, stock No. 38,328	*do*	10
Kettles, preserving, lipped, No. 160, stock No. 38,329	*do*	12
Kettles, preserving, lipped, No. 180, stock No. 38,331	*do*	14
Kettles, preserving, lipped, No. 200, stock No. 37.332	*do*	16
Kettles, preserving, lipped, No. 220, stock No. 38,333	*do*	18
Kettles, preserving, lipped, No. 240, stock No. 38,334	*do*	20
Kettles, preserving, lipped, No. 260, stock No. 38,335	*do*	25
Kettles, preserving, lipped, No. 280, stock No. 38,336	*do*	20
Kettles, Berlin, No. 02, stock No. 38,337	*do*	20
Kettles, Berlin, No. 03, stock No. 38,338	*do*	20
Kettles, Berlin, No. 04, stock No. 38,339	*do*	30
Kettles, Berlin, No. 06, stock No. 38,341.	*do*	35
Kettles, Berlin, No. 08, stock No. 38,342	*do*	35
Kettles, Berlin, No. 010, stock No. 38,343	*do*	45
Kettles, Berlin, No. 012, stock No. 38,344	*do*	55
Saucepans, Berlin, No. 02, stock No. 38,345	*do*	20
Saucepans, Berlin, No. 03, stock No. 38,346	*do*	20
Saucepans, Berlin, No. 04, stock No. 38,347	*do*	25
Saucepans, Berlin, No. 06, stock No. 38,348	*do*	35
Saucepans, Berlin, No. 08, stock No. 38,349	*do*	55
Saucepots, straight, No. 020, stock No. 38,351	*do*	30
Saucepots, straight, No. 200, stock No. 38,352	*do*	20
Saucepots, straight, No. 300, stock No. 38,353	*do*	25
Buckets, covered. No. 1, stock No. 38,354	*do*	14
Buckets, covered, No. 2, stock No. 38,355	*do*	18
Buckets, covered, No. 3, stock No. 38,356	*do*	20
Buckets, covered, No. 200, stock No. 38,357	*do*	20
Buckets, covered, No. 300, stock No. 38,358	*do*	25
Buckets, covered, No. 400, stock No. 38,359	*do*	50
Pails, water, No. 110, stock No. 38,361	*do*	40
Pans, deep dish, No. 10, stock No. 38,362	*do*	35
Pans, deep dish, No. 14, stock No. 38,363	*do*	40
Pans, deep dish, No. 17, stock No. 38,364	*do*	45
Pans, deep dish, No. 21, stock No. 38,365	*do*	55
Ladles, soup, No. 38, stock No. 38,366	*do*	8
Ladles, soup, 16-inch, stock No. 38,367	*do*	7
Cuspidors, No. 30, stock No. 38,369	*do*	25
Tubs, oval, foot, No. 2, stock No. 38,369	*do*	62
Pails, chamber, No. 3, stock No. 38,371	*do*	55
Chambers, with covers, No. 1½, stock No. 38,372.	*do*	35
Toothpicks, No. 1944, stock No. 38,441	*dozen*	45
Coffee mills, Enterprise, stock No. 38,451	*each...*	1.45
Knives, eraser, stock No. 38,518	*do*	30

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop,
Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun.
Sydney B. Williamson, Division Engineer, La Boca.
E. A. LeMay, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh. Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
Translators: F. H. Sheibley and Charles M. Brown.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry C. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Ancon; C. C. McColley, Empire; Chas. L. Parker, Gorgona; Edgar Lowe, Cristobal, division superintendents.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Rainfall from December 1 to 21, 1907, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Total.	Maximum in one day.
Atlantic Slope.		
Cristobal	9.12	2.28
Brazos Brook	6.37	1.75
Gatun	5.26	1.57
Bohio	2.86	.99
Tabernilla	4.46	1.56
San Pablo	2.98	.99
Central Section.		
Bas Obispo	1.31	.68
Empire	1.23	.54
Camacho Dam	1.97	1.03
Culebra	1.97	.80
Rio Grande	1.90	.75
Pacific Slope.		
La Boca	4.18	.95
Ancon	3.35	1.41
Naos	1.06	.31

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Finance	*P.RR.*	*Thursday*	*Dec. 19*
Altai	*H.-A.*	*Saturday*	*Dec. 21*
Colon	*P.RR.*	*Tuesday*	*Dec. 24*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec. 28*
La Plata	*R.M.*	*Saturday*	*Dec. 28*
Advance	*P.RR.*	*Monday*	*Dec. 30*
Panama	*P.R.R.*	*Saturday*	*Jan. 4*
Venetia	*H.-A.*	*Saturday*	*Jan. 4*
Dunottar Castle	*P.R.R.*	*Thursday*	*Jan. 9*
Tagus	*R.-M.*	*Saturday*	*Jan. 11*
Prinz Sigismund	*H.-A.*	*Saturday*	*Jan. 11*
Finance	*P.R.R.*	*Tuesday*	*Jan. 14*
Altai	*H.-A.*	*Saturday*	*Jan. 18*
Colon	*P.R.R.*	*Monday*	*Jan. 20*
Advance	*P.R.R.*	*Saturday*	*Jan. 25*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Jan. 25*
Magdalena	*R.M.*	*Saturday*	*Jan. 25*
Panama	*P.R.R.*	*Thursday*	*Jan. 30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Dunottar Castle	*P.RR.*	*Thursday*	*Dec. 26*
Finance	*PRR.*	*Tuesday*	*Dec. 31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec. 31*
Tagus	*R.M.*	*Wednesday*	*Jan. 1*
Altai	*H.-A.*	*Saturday*	*Jan. 4*
Colon	*P.R.R.*	*Monday*	*Jan. 6*
Advance	*P.R.R.*	*Saturday*	*Jan. 11*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Jan. 14*
Magdalena	*R.-M.*	*Wednesday*	*Jan. 15*
Panama	*P.R.R.*	*Friday*	*Jan. 17*
Venetia	*H.-A.*	*Saturday*	*Jan. 18*
Prinz Aug. Wilhelm	*H.-A.*	*Tuesday*	*Jan. 21*
Dunottar Castle	*P.R.R.*	*Wednesday*	*Jan. 22*
Finance	*P.R.R.*	*Monday*	*Jan. 27*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Jan. 28*
Atrato	*R.-M.*	*Wednesday*	*Jan. 29*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Trent	*R.M.*	*Tuesday*	*Dec. 24*

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

Vaccination.

TO ALL CONCERNED:

In order to properly enforce the vaccination ordinance, and at the same time to accommodate employes returning from their vacation, and in order to prevent unnecessary vaccination and friction resulting therefrom, this circular is to inform such employes that only a vaccination that has taken in recent years is required and all persons who have been successfully vaccinated, in the opinion of the Quarantine Officer, can secure a certificate to that effect, which will remain effective and be accepted as evidence in this particular for a period of three years. This certificate will be accepted by the surgeons on the Panama railroad steamers as evidence of immunity, and it will not be necessary to revaccinate persons having such certificate.

This certificate of vaccination can be secured from the Quarantine Officer of Colon, and the Quarantine Officer at Panama, but applicants for the same will be required to show such scars of vaccination before this certificate is granted.

(Sgd.) C. C. MCCULLOCH, JR.,
Acting Chief Sanitary Officer.

Ancon, C. Z., Nov. 23.

The steamship *Aagot* sailed from Baltimore, Md., on December 12, with a miscellaneous cargo, consisting of steel rails and fittings, steel hull plates, soft-steel bars and other construction material for the Isthmian Canal Commission.

CANAL RECORD

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The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

NOTES OF PROGRESS.

Arrival of the "Culebra."

The sea-going suction dredge *Culebra* arrived at La Boca on the morning of December 28 after her long voyage of 12,000 miles. She is a sister dredge of the *Ancon*, which was described in The Canal Record of October 9. She sailed from Sparrows Point, Md., on the morning of October 9, with a crew of fifty-three men, in command of Capt. Helliksen. Previous to her departure the hopper doors were sealed and covered with cement, in order to make them water-tight, and the hoppers filled with coal as a reserve supply and as ballast. Heavy weather was encountered for the first few day out and on the fourth day she ran into a hurricane lasting about eighteen hours, but she proved herself a good sea boat and no damage was sustained. Barbados was reached on October 19, where coal and provisions were obtained. She sailed from there October 20 and had fine weather to Pernambuco, Brazil, where she arrived October 30. After coal and stores had been obtained she sailed November 4 and had fine weather until within 200 miles of Montevideo when a heavy southeast gale was encountered, lasting for about twelve hours. Montevideo was reached November 13, where four days were spent in coaling and securing provisions. She sailed on November 17 and had fine weather until Cape Verde was sighted when she ran into a heavy southwest gale and anchored off the cape on November 23. During the gale the starboard anchor was lost. She left Cape Verde the next day and ran down to Possession Bay, Straits of Magellan. On November 25, she proceeded to Gregory Bay and anchored there for the night, and the next day, November 26, arrived at Punta Arenas. Coal and provisions were obtained and on November 30 she sailed, encountering very bad weather from the Straits of Magellan to Coronel, Chile, where she arrived December 7. Coal could not be obtained there on account of the heavy swells beating into the harbor and the voyage was continued to Valparaiso where she arrived December 9. After coaling and provisioning she sailed on December 11, and had fine weather to Callao, Peru, which was reached on December 17. After again laying in a supply of coal and provisions, she sailed for La Boca. The entire trip lasted 80 days, of which 61 were spent at sea, and 19 at the various ports *en route*. The average speed for the trip while at sea was about nine knots per hour, and on her official trial trip in Chesapeake Bay she made a record of 9.88 knots per hour in a 90-mile trial run.

Notice to Employes.

Employes should understand that in order to receive payment on account of illness or injury under the regulations of the Commission, it is necessary to present themselves at a dispensary for treatment, or have a physician visit them in quarters in all cases where they are detained from their duties. Under the Chairman's circular, No. 144, which was published in The Canal Record of October 2, the physician's certificate must state specifically that the illness was contracted through no fault of the employe, and it is obvious that such certificate can not be given unless the physician has personal knowledge of the employe's condition.

This is published for the information of all employes, in view of the criticism to which physicians have been unjustly subjected for refusing to furnish certificates in cases where they were not consulted by the employes.

Two More Usable French Barges.

The Sanitary Department has recently called the attention of the Chief Engineer to two 75-ton coal barges lying in the Rio Grande where they had been abandoned by the French company. They are about one-half mile below the point at which the Panama railroad crosses the Canal prism near Pedro Miguel, and are similar to the one taken apart and conveyed by railroad to La Boca and rebuilt, as described in The Canal Record of November 13.

These barges are in fairly good condition and can be economically rebuilt. They are at present full of water caused by the rains of the recent wet season. The water will be pumped out and the decks housed over during the coming dry season, and at the next rainy season an effort will be made to float them to the shipways at La Boca, as they are too far away from the railroad to be taken there by train. It is thought it will not be a difficult matter to float them out during high water in the river.

Because of the special design of these old French barges they have the same advantages as ships built with a double bottom and are structurally very strong and practically unsinkable. The space between the bottom of the barge and the bottom of the hold, with the lateral bulkheads, forms air-tight compartments, so that if a hole were knocked in the hull by a collision, or even if the hull itself were cut in two the barge would float. This feature of construction has proved its usefulness on several occasions.

Culebra Island Quarantine Station.

A permanent Canal Zone quarantine station is being established on Culebra Island in Panama bay for use at the Pacific entrance of the Canal. It will be composed of ten buildings which are now in course of erection, and which will be used as follows: Building No. 1 for the general detention of cabin passengers; No. 2 for the general detention of steerage passengers; No. 3 for women steerage passengers and attendants; No. 4 for station attendants' quarters; No. 5 for a plague laboratory; No. 6 for a laundry, and Nos. 7 and 8 as isolation wards for suspicious cases of infectious or contagious diseases. Building No 9 will be the Superintendent's residence.

A double system of water supply will be provided for the island. Salt water will be pumped directly from the sea to a 50,000-gallon tank located on the nearby island of Naos, from which a 6-inch water main will be laid under the narrow strait separating the islands and leading to all the buildings, furnishing ample sanitary and fire protection. The fresh water supply will be obtained from the rainfall. Gutters on the eaves of the buildings will be connected with pipes which will carry the water to two tanks, with a combined capacity of 100,000 gallons, located near the pump house (Building No 10). These tanks are so arranged that in case of necessity fresh water, brought in barges from La Boca, can be pumped into them. This fresh water supply will be used only for cooking and other necessary purposes, the main supply being salt water as stated above.

On account of the rise and fall of the tide at this point, which amounts to about twenty feet, a wharf of such construction will be built as to render it available at all stages of the tide. It will consist of two bridge spans, each 55 feet long. One end of Span No. 1 will be fastened to the shore abutment by a hinge joint. The other end will rest upon a float or pontoon, held in position by guide piles, and will follow the vertical movement of the water until the tide is half out when a cross-beam on the pontoon will rest upon a support on the guide piles, and will prevent further downward movement of the pontoon and of the in-shore span. One end of Span No. 2 is also secured to the same pontoon, the other end being on another pontoon, 20 by 50 feet in size and about 6 feet deep, which

NOTES OF PROGRESS.

(Continued)

will form the wharf landing. This second pontoon will also be held in place by guide piles and will follow the total vertical movement of the tide. At extreme low water the wharf will have a grade of about 10 per cent. from the landing to the shore, and as there will be fifteen feet of water at the end of the wharf at extreme low tide, steamers connected with the quarantine service will always be able to make a landing.

The plan of this wharf is a modification of the landing used by ferries in the States. It is not known, however, whether a wharf of this character has ever before been attempted where there was such an extreme tide, but it is believed that this simple solution of the case will accomplish the desired purpose at a minimum cost. All the material for building the wharf is on the ground and all the steel and iron needed in its construction consists of old French material found on the Isthmus.

Highest Daily Shovel Records.

The subjoined table gives the highest daily records of steam shovels in the Department of Excavation and Dredging from December 1 to 24, inclusive:

Shovel No.	Date.		Location.	Amt. of material removed (cubic yards.)	Kind of material.
221	Dec.	3	Bas Obispo...	1,900	rock and earth
116	Dec.	3	Bas Obispo...	1,788	rock and earth
205	Dec.	21	Empire..........	2,140	rock and earth
126	Dec	4	Empire..........	1,164	rock and earth
222	Dec.	18	Culebra.........	2,072	rock and earth
128	Dec.	2	Culebra.........	1,960	earth
211	Dec.	13	Pedro Miguel	3,164	soft rock
110	Dec.	6	Pedro Miguel	1,900	earth
103	Dec.	13	Mindi	1,344	rock and earth
115	Dec.	21	San Pablo ...	1,450	rock and earth
54	Dec	20	Caimeto Mul	1,030	earth

Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dippers of a capacity of 5 cubic yards. Shovels in the fifty class are 45-ton shovels with dipper capacity of 1¾ cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

Gatun Steam Shovel Work.

The maximum daily output for the week ending December 21 was made on Friday, 20th instant. The amount excavated was 7,174 cubic yards, car measurement, being an average of 1,435 cubic yards per shovel.

For the same period, there was loaded by steam shovels Nos. 113 and 114, at the spillway, 18,178 cubic yards, car measurement. The largest day's loading for both shovels was on the 21st, when 3,622 cubic yards were taken out. Steam shovel No. 114 made the largest output for any one day during the week, loading 2,016 cubic yards on the 21st.

Dredging at La Boca.

The maximum daily output by the three dredges of the La Boca Dredging Division for the week ending December 28, scow measurement, was as follows: December 27, dredge A 2, 6,772 cubic yards; December 28, dredge 14, 7,012 cubic yards; December 26, dipper dredge, 4,480 cubic yards. The total output of each of the three dredges for the same period was, dredge A-2, 20,205 cubic yards; dredge 14, 24,882 cubic yards; dipper dredge, 20,160 cubic yards. The total output from December 1 to December 28 was dredge A 2, 143,024 cubic yards; dredge 14, 130,797 cubic yards; dipper dredge, 59,590 cubic yards.

Tampering with Fire or Water Supplies.

The special attention of employes and all other persons concerned is called to the following section of the "Rates, Rules and Regulations Governing the use of Water on the Canal Zone," which were adopted by the Isthmian Canal Commission on October 28, 1907.

"No person, or persons, shall remove, obstruct, injure, molest, or otherwise tamper with any fire hydrant, standpipe, fire plug, tank, hand-grenade, fire extinguisher, hose, hose reel, cart, engine, harness, valve, box or cover, stop cock, stop box or cover, or any other tool, fixture, apparatus, pump, machinery, or building of any kind whatsoever connected with, or necessary to the proper and efficient operation of the water systems, or for fire protection within the Canal Zone; nor shall any person, or persons, wilfully or otherwise, misuse or waste, or cause to be misused or wasted, water supplied from the water mains owned and operated by the Isthmian Canal Commission, and the Government of the Canal Zone. Any person, or persons, violating any provision of this section shall be deemed guilty of a misdemeanor, and upon conviction, shall be punishable by a fine of not less than five dollars ($5) nor more than twenty-five dollars ($25), or by imprisonment for a term not exceeding thirty (30) days, or by both such fine and imprisonment: Provided, however, that the provisions of this section shall not apply to firemen in the regular discharge of their duties and duly authorized representatives of the Division of Municipal Engineering.

"Contractor" Instructed.

TO THE EDITOR OF THE N. Y. HERALD:

In reply to an article signed "Contractor," dated November 8, 1907, criticising the amount of earth and rock excavated during October, 1907, from the Isthmian Canal as ridiculously enormous, I would like to inform him that steam shovel No. 103, located at Mindi, Canal Zone, October 8, (the month he mentions), excavated 1,419 cubic yards of rock and earth, and on October 23, excavated 1,950 cubic yards of rock and earth. The bank this shovel was working in contained seventeen feet of rock and seven feet of earth.

Shovel No. 103 is of the seventy-ton class with a dipper capacity of two and one-half cubic yards. I personally saw this shovel perform the above work on both days, and I know that it was done in a working day of eight hours.

We cordially invite Mr. Contractor to come down on the Isthmus and spend a week with us and we will show him how to make the dirt fly and also convince him that we are earning all Uncle Sam pays us, and have no place for drones here. The boys can grumble here, like Contractor does, but it is because they cannot get more dirt out, and that would be almost an impossibility, but we will try to overcome impossibilities and keep up the old American record for activity during the dry season.

Contractor must also remember and take into consideration that this work was performed during the height of the rainy season. We would be thankful if Contractor would give us credit for what we do instead of trying to hold us up to ridicule. We are away from home, but still Americans, and the laugh is on him.

EMPLOYE MINDI.

Gatun, C. Z., Dec. 6, 1907.

$100 (Gold) Reward.

The above reward will be paid by the Isthmian Canal Commission for the arrest or apprehension, or for information that will lead to the arrest or apprehension of Blas Martinez, who is wanted by the Canal Zone police authorities for the crimes of murder and rape, committed in Las Savannas, Canal Zone, on December 19, 1907. The description of Martinez is as follows:

Nationality, Colombian; age 44 years; color, dark brown; eyes, dark brown; hair, black and curly; height, 5 feet 6¼ inches; weight, about 140 pounds; nose, very flat, speaks Spanish and some English.

Marks, scars, etc. Scar 1½ inches long on left centre of forehead; scar 1¼ inches long, left of left eye; circular scar above left cheek; scar ½ inch long right of right eye, circular scar 1½ inches below right eye; part of right ear missing.

Tattoo marks: Anchor 1½ by 2 inches and letter "M" on left breast; scar 1½ inches in diameter with letter "B" on right breast; letters "L. M" and a fish on left forearm, inverted letter "M" and star 1½ inches in diameter, and a heart with a sword through it tattooed on left forearm.

Information relating to Martinez should be immediately communicated to the Chief of Police, Ancon, Canal Zone.

GEO. R. SHANTON,
Chief of Police.

Approved: D. D. GAILLARD,
Acting Chairman,
Isthmian Canal Commission.

Ancon, Dec. 28, 1907.

Two Hundred Dollars Reward.

On December 24, 1906, Paul Chung, a Chinaman was murdered at Paraiso, by being struck on the head with some blunt weapon. The perpetrator of the crime has never been discovered. Some of the circumstances surrounding the murder are similar to those connected with Philip F. Kramer, at Paraiso on December 16, 1907, for which $500 reward has been offered. Relatives of Paul Chung offered a reward of $200 for information leading to the arrest and conviction of the murderer, which reward is in the hands of the Chief of Police and still remains good.

Escaped Murderer Captured.

Prisoner John Hughes, who, on December 20 escaped from his guard while being taken from his cell to the mess hall at Ancon police station, was recaptured by the police in Las Sabanas on December 27. Hughes is a prisoner who is wanted on the charge of murder in the State of Florida. He is a large, powerful man, and was captured only after a long run and rough-and-tumble fight.

Hughes will be sent at once to New York in charge of a Zone police officer. Upon the arrival of the boat he will be turned over to the proper authorities, who will take him to Florida to stand trial for the murder of which he is accused.

WESLEYAN METHODIST MISSION.

Work Done Among the Negroes in the Zone and at Panama and Colon.

By the Rev. M. Britton King, Superintendent.

The Wesleyan Methodist church on the Isthmus of Panama is a branch of that church in the West Indies, and is included in the Jamaica district, which is under the direction of the Missionary committee of the English Conference.

This church, together with the Methodist Episcopal church, owes much to the zeal and ability of the great missionary bishop, Dr. Thomas Coke. Dr. Coke was a gentleman commoner of Jesus College, Oxford, who was associated with the Rev. John Wesley in his evangelistic work and who, in 1784, was appointed superintendent of the Methodist church in America. On one of his voyages to the United States, accompanied by three ministers, they were driven so far out of their course by a gale that when land was sighted, it proved to be the island of Antigua, one of the British West Indies, where they landed on Christmas day, 1786. Here they found a warm welcome, for although there was no resident minister, Methodism had already taken root there. A wealthy planter of the island, while on a visit to England several years previously, had come under the influence of Wesley's preaching, as had also several of his slaves, and as a result of the missionary work done by them after their return home, about 2,000 people had embraced the Methodist faith. It was early in the morning when Dr. Coke and party landed, and he met many of the people going to the five o'clock Christmas service. This custom is still maintained, and the early service Christmas morning is one of the best attended of the year throughout the West Indies. Dr. Coke was much impressed with the congregation, and said in his letters that it was "one of the cleanest audiences I ever saw. All the negro women were dressed in white gowns, petticoats, kerchiefs and caps, and the men as neatly."

When Dr. Coke left the island to resume his voyage to the United States, an illustration was given of the generosity of the people toward their ministers. "Seed-cakes, sweet biscuits, oranges and bottles of jelly were brought in such abundance," said Dr. Coke, "that although I shared them freely with my fellow passengers, we had not disposed of half their store when the eighteen days' voyage ended." So impressed had Dr. Coke been with the conditions there that he left the three ministers who had accompanied him, in the West Indies. One was stationed at Antigua, another at St. Vincent, and the third at St. Christopher. The work spread rapidly to the other island colonies of Great Britain and to those of France, Holland and Denmark, and in course of time to the republics of Spanish Honduras, Hayti, Santo Domingo, Nicaragua, Costa Rica and Panama.

Organized work on the Isthmus of Panama by the Wesleyan Methodist church was started in 1882, the year of the earthquake, and the 25th anniversary of the founding of the Mission was recently held

A line of mission stations was established, including Colon, Gatun, Lion Hill, Bohio, Frijoles, Empire, Pedro Miguel and Panama. The mission at Colon was originally known as the Taylor Mission, so named because it owed its inception to Bishop Taylor, whose missionary labors were attended with great success in many lands. Day schools were opened, but these with the exception of those at Panama and Colon have since been closed on account of the formation of the Canal Zone Government schools. Sunday schools at the mission stations are still continued and there are about thirty teachers and 550 scholars enrolled with an average total attendance of about 400. There are at present two ministers of this church on the Isthmus, one residing at Panama and the other at Colon, who make frequent visits to the mission stations in the Zone, and a staff of sixteen lay preachers, all negroes, who hold services regularly at these places. There are young people's societies at Panama, Colon and Empire that are doing much good. At Cana, where the Darien Gold Mining Company's operations are located, a catechist cares for the religious and educational needs of the people. The buildings at Panama, Colon, Frijoles, Lion Hill and Gatun are the property of the church; those at Pedro Miguel, Empire and Bohio were loaned by the French company, which courtesy has been continued under the present Isthmian Canal Commission. A few months ago the school room at Colon was destroyed by fire, and unfortunately the loss was not covered by insurance, but an effort is being made to rebaild it. In Panama the foundation of a new church was laid about nine years ago, but adverse circumstances caused a cessation of the work. Building operations have again been started, and a stone church 70 by 40 feet is in course of erection, the cornerstone of which was laid on New Year's Day, 1908. A plan for a new church at Colon is also under consideration.

A large majority of the members of this church on the Isthmus, are natives of Jamaica and other islands of the West Indies, and are employed by the Isthmian Canal Commission, or the Panama Railroad Company. There are about 750 communicants on the church registers and about 3,000 adherents over whom the ministers have pastoral charge. Frequent visits are made to the various hospitals of the Commission, and there are numerous letters that come from anxious relatives and friends in regard to persons on the Isthmus, that require much attention and time. Practically all the work in connection with these mission stations is financially self-supporting, as it has always been the policy of this church to inculcate among its members, the duty and privilege of self-help in regard to supporting its various benevolent enterprises. In this way, the interest in, and concern for the progress of the work has been maintained.

A few years ago the then existing political conditions nearly brought about the suspension of the work. Services could only be held occasionally and at great personal risk as several of the ministers were under fire at various times. Now under the blessings of a more settled form of government, services are regularly held and the work is carried on with no interruption from political causes.

PERSONAL.

Owing to the recent change in plan for the locks and dams at the Pacific end of the Canal, Mr. Sydney B. Williamson, Division Engineer, has moved his office from La Boca to Corozal, and all communications should be addressed to him there.

Mr. F. H. Newell, Director of the United States Reclamation Service, who has spent several days in visiting different parts of the work on the Canal, returned to New York on the *Dunottar Castle* which sailed from Cristobal on December 26.

Miss Edith Slifer, daughter of the General Manager of the Panama railroad, who came to the Isthmus to spend Christmas at Colon with her parents, sailed for New York on December 26 on the *Dunottar Castle*, accompanied by her friends, Miss N. Stull and Miss Vera Bergman. The Misses Margaret and Mary Slifer who have also been spending Christmas at Colon, returned to New York on the *Finance* which sailed from Cristobal on December 31.

Dr and Mrs. T. C. Lyster, of Ancon Hospital, returned to the Isthmus on the *Finance* which arrived at Cristobal on December 26.

Mr. M. J. Stickel, Secretary of the Y. M. C. A., at Cristobal, sailed on the *Dunottar Castle* on December 26 for a six weeks' leave of absence in the States. During his absence Mr. F. C. Freeman, Traveling Secretary of the Y. M. C. A., will have charge of the club house at Cristobal.

Mr. Paul Stanley Erricson of the office force of the Hotel Tivoli, and Miss J. Irene Trau were married in Ancon on the afternoon of December 24. Mr. and Mrs. Erricson will reside at the Hotel Tivoli.

Circus on the Isthmus.

Shipp's Great American Circus, which has come to the Isthmus by the way of New Orleans, opened at Colon on December 28, with its "old fashioned circus" performance, remaining there three days. It opens in Panama on the evening of January 1, continuing for eight nights and a Sunday matinee. It wili go next to Empire for two or three performances, and then go to Gorgona for one or two.

COMMISSION CLUB HOUSES.

The bowling match at Culebra on Christmas Day resulted in a victory for Lamster and Vogel of Culebra in the two-men team contests, they having a total pin fall for the three games rolled of 1,202. Winters and Roberts, also of Culebra, were second with a pin fall of 1,131. The individual event was won by Durand of Empire with a score of 589 for the three games, with Vogel of Culebra second with 588 Lamster of Culebra scored 243 thus winning the high score prize. Contestants were entered from Cristobal, Empire, Gorgona and Culebra.

A new class in Spanish will be started Wednesday, January 8, under the instruction of Mr. Bernard Beckerlegge The last three terms have been very successful.

Both chess and pool tournaments are advancing rapidly and are bringing forth some admirable latent talent and many surprises.

Saturday, December 21, the Cristobal Y. M. C. A. basket ball team was defeated by the Y. M C. A. team from Gorgona by a score of 33 to 29. The game was clean cut and snappy from start to finish. A debating club, recently organized and known as the Senate, is creating a considerable interest among the Y. M. C. A. members. Judge Thomas H. Brown, jr. is acting president, and under his leadership the men expect to settle many weighty questions.

SOCIAL LIFE OF THE ZONE.

The Best Christmas Celebrations Since American Occupation.

Christmas, nineteen hundred and seven, will be remembered on the Zone as the merriest Christmas since American occupation. Social and domestic life are so well developed and organized that the community Christmas entertainments were successfully carried out and great satisfaction is felt by those who had them in charge. Especial attention was paid to the children and the entertainments in which they took part were appropriate and interesting while gifts were numerous. A generous Christmas spirit was manifested, everyone contributing in one way or another, to their success. Nearly all the celebrations took place on Christmas eve, though some were deferred until later, thus making the holiday week one of pleasurable anticipation and excitement for the little ones.

At Cristobal on Christmas eve, the Union church, the woman's club, the day school, and the Y. M. C. A. joined together in giving an old-fashioned Christmas party in the Commission club house to the children of Cristobal. Santa Claus was there in all his glory, and gave presents to the children from a genuine Christmas tree brought from the States. About 500 people were present, and after the exercises were completed popcorn, candy, nuts and orangeade were served in the reading room, and music was furnished by the Canal Zone band. It was a Christmas eve long to be remembered.

The community of Gorgona celebrated Christmas enthusiastically, the united efforts of the Y. M. C. A., the Sunday school and the woman's club having been put forth to make it memorable. The entertainment was given in the Commission club house. The committee in charge was L F. DeMontrency, Henry E. Daly and Jno. J. Easten of the Y. M. C. A., assisted by a committee of the woman's club and teachers in the public schools. The program committee of members of the woman's club, consisting of Mrs. Jack Fogerty, Mrs. C. Pierson, Mrs. R. C. Goodale, Miss Laura Faxon and Mrs. Ralph Wolf, had charge of the drilling of the children. The decorating committee, Mrs. Jack Eason, Mrs. Bergstrom and Mrs. Johnson had charge of the tree and the decorations of the room. The tree was beautifully trimmed with the usual Christmas decorations and in addition a number of small colored electric lights. The children gave the entire program, of 29 numbers, lasting an hour and thirty minutes, which wound up with a tableau, composed of six children watching for Santa Claus before an open fireplace through which came Santa Claus (Mr. Frank Morrison) with a jingle of bells. After a short speech the presents were distributed. Each child received a toy, a tarlton stocking filled with apples, oranges, nuts and raisins, and a house box filled with candy There were about four hundred people present. The Christmas tree was afterwards turned over by the committee to the people of the colored church. On Christmas night, the committee finished distributing presents by giving out two barrels of apples and a half barrel of oranges from the steps of the Commission club house, to the native children of the town. The work of the woman's club had much to do with the success of the entertainment. The purchasing committee in the States was composed of Miss Helen Varick Boswell of the National Civic Federation and Mr. John M. Glover, international secretary of the Y. M. C. A.

The Christmas entertainment at Empire, given by the Y. M. C. A. at the Commission club house on the evening of December 24, was a decided success from every point of view. There was an excellent program rendered by the Ernest Gamble Concert Party and the school children. The portion rendered by the children consisted of the following: March and drill, led by the master of ceremonies, Master Bun Davies; vocal selection, Miss Eva Harris; address of welcome, Miss Lucy Stuntz; piano solo, Master Cleland McDevit; recitation, Miss Elizabeth Pickens; choral selection. The most exciting part of the program was the arrival of Santa Claus and his distribution of the hundred Christmas stockings to the children present. Many other presents were also distributed.

On Christmas eve at Culebra, the Sunday school, assisted by the woman's club and Y. M. C. A., gave a very enjoyable entertainment for all the children of Culebra. A tree sent from the States, and appropriately decorated, was the center of attraction, and added materially to the enjoyment of the evening. A program of songs, recitations, and drills by the children was presented, together with a visit from Santa Claus and the distribution of gifts.

The tree and entertainment at Pedro Miguel was held on Christmas eve, being arranged under the auspices of the Pedro Miguel Social and Recreative club. A committee consisting of Mesdames Barnes, Waters, Hobby and Henderson, of the women's club, and Messrs. Henderson, Palmer, Pendry, Hobby, Bergeman and Oldfield of the social club, was in charge of the arrangements. The center of interest was the Christmas tree, the gift of Mr. and Mrs. W. Henderson, which was attractively festooned with the usual Christmas decorations. About thirty children took part in the program and sang school songs and carols. The tree was lighted early in the evening and the gifts distributed, after which supper was served. Later in the evening a dance was given by the club which lasted until a late hour. Special trains were run from Paraiso and Corozal. The club rooms were beautifully decorated. An elaborate supper was served at midnight and a delightful evening was enjoyed by all present. On the same evening a smoker was given by the bachelors at Paraiso.

The Sunday school of St. Luke's church, Ancon, held its celebration December 29, in the Protestant chapel in the hospital grounds. The celebration consisted of a short service and a short address by the chaplain, Archdeacon Bryan, the singing of carols by the children and the distribution of gifts. All the children of Ancon, La Boca and Corozal were invited, and the attendance was good. There will be a service at this chapel on New Year's morning at 10 o'clock.

The Cristobal club held its regular business meeting December 27, the president, Mrs. Lorin C. Collins being in the chair.

The club is making preparations for the Federation meeting on January fourth and will entertain the officers and delegates of the visiting clubs at luncheon at the Commission hotel. In order to make the recognition of delegates more simple, it is desired that each delegate wear a badge upon entering the hall.

The Gorgona Woman's Club held its regular meeting December 26. In the absence of the president, Mrs. D. E. Hayes, secretary, presided. The meeting in the regular order, should have been for the quarterly election of officers, but in the absence of several members and officers, the elections did not take place.

The Las Cascadas club held its regular meeting in the club room December 26. The entertainment committee served refreshments, and as a surprise, presented each member of the club with a little plate as a Christmas remembrance. The club has been actively preparing for the bazaar, which was held December 31. A general invitation to attend this entertainment had been extended and the attendance was satisfactory. The club did not have a share in the Christmas celebration, as trees were given by two other local organizations, both occasions being much enjoyed by the school children and others of the community. Members elected to attend the Federation meeting at Cristobal are the president, Mrs. Randall, Mrs. Lynn, Mrs. Drysdale and Mrs. Boregard. It will be remembered that this club was not formed until after the organization of the Zone Federation of Women's Clubs, and it is not, therefore, a member of that body. Application for membership will be made at the coming meeting.

The Empire Woman's Club held its regular meeting December 19 with an unusually large attendance. The president, Mrs. F. W. Miracle, was in the chair, and the business proceeded in regular order. The application of ten resident women for admission to the club raises the membership list to nearly sixty. The meeting was a social one and the afternoon was spent informally. Refreshments were served by the committee under the chairmanship of Mrs. George T. Burnett. Mrs. E. Beck, the vice president of the club, has returned to Empire after a short visit to Cristobal.

The Pedro Miguel Woman's Club has resumed activity and is enrolling new members at every meeting. A "clipping" social was given by the club December 21, which was very successful. After the sale of the "clippings," which netted a good sum for the benefit of the organization, supper and dancing were enjoyed by those present. The club will give a Japanese tea in honor of the Paraiso Woman's Club January 8. In the list of the club officers given by request in the last issue of THE CANAL RECORD, the name of the secretary of this club was not included. Mrs. H. W. Shick has been elected to that office.

The Ancon club held its business meeting on New Year's morning at 8:30 in the sun parlor of Hotel Tivoli. The committee on the dance to be given by the club announced that the only available date for the Tivoli ballroom is February 29. The ball will be a flower dance, and the ladies will appear in costume, each representing a flower. Invitations will be extended to other clubs in the Zone. The committee will have the arrangements completed in a short time.

ANCON AMUSEMENT ASSOCIATION.

First Step in the Formation of a New Organization.

The following invitation was circulated among all the residents of Ancon and Ancon hospital:

> You are invited to attend a mass meeting in the parlor of the Hotel Tivoli, on Friday evening the 27th instant, at 8 o'clock, for the purpose of forming an amusement and improvement association for the benefit of the I. C. C. employes, and their families. It is earnestly hoped that all the employes of the I. C. C. quartered at Ancon, and Ancon hospital, whether bachelor or married, will attend.
>
> Tom. M. Cooke,
> Joseph Bucklin Bishop,
> Geo. R. Shanton,
> H. D. Reed,
> W. C. Gorgas,
> J. G. Holcombe,
> W. E. Deeks,
> *Committee.*

Pursuant to this call, about a hundred persons assembled in the parlor of the Hotel Tivoli on Friday evening. Col. Tom. M. Cooke was unanimously chosen chairman of the meeting, and Mr. J. P. Avis, secretary. A prepared statement was read setting forth the purpose of the meeting, which in substance was, that as there was no association or club in the vicinity to procure amusement for the employes stationed there, it was considered advisable to form an association of the broadest scope possible, which could secure any and every form of entertainment which could amuse or improve the conditions of living. Such an association should arrange not only for indoor but outdoor entertainments, and all employes of the Isthmian Canal Commission and the Panama railroad on the gold roll should be eligible to membership.

The Chairman announced that in order to bring the subject properly before the meeting for discussion, a motion should be made.

Accordingly Mr. H. D. Reed moved that an Ancon Amusement and Improvement association be formed. Several gentlemen spoke very enthusiastically in favor of it, among them Dr. Gruver and Mr. Lipsett, both stating that they thought such an association necessary, and that its scope should be of the broadest kind possible.

Judge Gudger favored an association so broad that it could provide any and every kind of amusement not forbidden by law. After further speeches, the motion was unanimously carried. It was then moved and seconded, that the chair appoint a committee of nine, to include the chair, to draft a constitution and by-laws for the association, and that an adjourned meeting should be held on Saturday, January 4 at 8 p. m. in the parlor of the Hotel Tivoli, for the purpose of receiving the report of said committee and forming a permanent organization.

This motion having been carried, the chair announced that he would nominate the member of said committee later, as he considered it such an important thing that he desired to carefully consider the men selected.

A motion was then made and carried that the chair appoint a small committee to act as canvassers for the purpose of securing additional members who were not present at the meeting. In accordance with this motion the following gentlemen were appointed: Capt. Geo. R. Shanton and Mr. J. M. Maguire, for Ancon and Panama; Mr. A. C. Harper and Mr. J. St. C. Hunt for La Boca and East La Boca, and Mr. C. G. Haskell for Corozal.

Papers were then circulated to secure the signatures of those persons present who desired to join this association. The following signatures were secured:

Joseph Bucklin Bishop, W. E. Deeks, J. M. Maguire, J. A. LePrince, E. C. McFarland, Fleetwood Gruver, W. T. Dozier, John Freeland, H. T. Summersgill, A. M. Colegrove, John S. Walker, Emil J. Rall, Jas. O. Meadows, W. E. Russell, B. D. Radcliffe, W. B. Ruggles, E. J. Lewis, Edw. Fitzpatrick, J. W. Belt, L. M. Lipsett, R. G. Baldwin, C. C. Jackson, A. C. Harper, Wm. W. Ruggles, M. L. Duff, Tom. M. Cooke, H. R. Carter, K. K. Kramer, Wm. E. Murtogh, A. E. Mayner, H. A. Gudger, J. W. Barrett, C. G. Haskell, J. L. Storla, W. Krugel, Harry M. Payne, J. P. Avis, Jere Turpin, Chas. G. Thompson, H. B. May, R. A. Conard, Chas. F. Runck, jr., L. R. Brown, H. E. Bovay, J. M. Shady, E. E. Price. F. E. Delano, D. H. Moffat, W. R. Woods, Hugh S. Hunter, George R. Shanton, J. G. Holcombe, R. G. Castel, Wm. H. MacFarlane, S. E. Blackburn, G. M. Shontz, H. D. Reed, Geo. H. Bartholomew, Kenneth Bovay, Thos. Crozier, E. F. O'Neill, Robt. R. Van Horn, J. M. Sinclair, J. E. Siler, Andrew W. Dewling, O. M. Ewing, C. A. Merritt, J. Saville, H. Bortin, C. B. McCormick, Benj. D. Wileng, B. W. Payne, E. A. Deems, James Bowdry, E. M. Arbuckle, C. F. Cretors, P. de Obarrio, C. E. Guyant, Jacob Cohen, C. H. Jewett, T. C. Lyster, Walter H. Stevens, Clem S. Leftwich, S. A. Higgins, Geo. F. Halsey, P. J. Mahoney. J. St. C. Hunt, Fred. A. Feld, Wm. E. Maxon, Robert Coe, W. C. Haskins.

Colonel Cooke subsequently announced the following committee on constitution and by-laws, stating that it was his endeavor to so far as possible, represent each locality and all branches of the service:

Tom M. Cook, chairman; T. C. Lyster, Ancon hospital; W. E. Grant, Municipal Engineering; A. C. Harper, Engineer; W. E. Russell, Building and Construction; Wm. Krugel, Material and Supplies; J. M. Maguire, Labor, Quarters and Subsistence; J. Kyte, Corozal; J. St. C. Hunt, Panama railroad and La Boca.

The movement appears to have met with hearty approval, and a successful organization seems to be assured.

It is the desire of all concerned that at the meeting on January 4, at 8 p. m. in the parlor of the Hotel Tivoli, every employes of the Commission and Panama railroad stationed in Ancon, Ancon hospital, Panama, La Boca, East La Boca and Corozal shall be present.

Cristobal Garrison, Regular Army and Navy Union.

The Canal Record:

The third Garrison of the Regular Army and Navy Union of the United States of America was installed at Cristobal, C. Z., Wednesday evening, the 18th instant, by Mr. Lester E. Herman, the Assistant Inspector General of the National Corps for the Canal Zone. The laws governing the installation of a new garrison were complied with, the election of officers resulting as follows:

Grover C. Bradford, commander; Herman Kehm, senior vice commander; Frank L. Cornish, junior vice commander; Charles D. Mitchell, chaplain, William M. Ridpath, adjutant and quartermaster; H. V. H. Monk, paymaster; Paul Wolleuburger, surgeon; Fred. M. Kaulbach, officer of the day; Lewis B. Mickle, officer of the watch; Joseph J. Marek, officer of the guard.

It is the intention of Mr. Herman to have three garrisons on the Isthmus. One has been installed at Culebra, covering the district between that place and Panama, including La Boca. The garrison now located at Empire (Admiral Asa Walker No. 40) will be transferred to Gorgona, taking in all towns between Gatun and Culebra. The Cristobal garrison will cover the territory between Gatun and Colon.

Men who have served in the Regular Army, Navy or Marine Corps of the United States, are eligible to enrollment. Application blanks for Cristobal Garrison can be obtained by applying to Mr. H. V. H. Monk, Gatun, or the undersigned. The next regular meeting has been ordered for Friday, December 27, 1907, at 7:30 p. m., in the court room, No. 1 Building, Cristobal, C. Z.

Very respectfully,
Wm. M. Ridpath,
Adjutant and Quartermaster.

Cristobal, December 20.

Improved Order of Red Men.

The Canal Record:

To all members of the Improved Order of Red Men residing in the Canal Zone. There are at present in the Zone seven tribes, and one Council Degree of Pocahontas, I. O R. M. that are organized and in full working order, and that are in constant communication with the various Great Chiefs throughout the United States. Their name and location is as follows:

Chiriqui Tribe No. 1, Culebra—Instituted January 3, 1906. Meets every Saturday evening.

San Blas Tribe No. 2, Cristobal—Instituted March 16, 1906. Meets every Tuesday evening.

Cocle Tribe No. 3, Empire—Instituted March 29, 1906. Meets every Friday evening.

Aztec Tribe No. 4, Pedro Miguel—Instituted June 16, 1906. Meets every Thursday evening.

Cholo Tribe No. 5, Gorgona—Instituted December 3, 1906. Meets every Monday evening.

Incas Tribe No. 6, Gatun—Instituted February 16, 1907. Meets every Thursday evening.

Caribb Tribe No. 7, Las Cascadas—Instituted March 16, 1907. Meets every Wednesday evening.

Alfaretta Council No 1, D. of P., Culebra—Instituted March 26, 1906. Meets every Tuesday evening.

Members are always welcome at any of these council fires. Members resident at a village, near a tribe to which they are not on its rolls, should register with said tribe. This applies in like manner to those who are members of the organization and affiliated with some tribe in the States. In case of accident or sickness, these members would be known as such, and could have the additional assistance of the nearest tribe and its members. Do this at the next meeting of a tribe near whom you are resident—attend; show your credentials and receipts; register your name, occupation and address; give any additional information thought necessary. Your attendance will be appreciated. The good will and benefit you receive will be shown by your future attendance.

Fraternally, yours in F. F. & C.,
John E. Burns,
C. of R., Chiriqui Tribe No. 1.

Culebra, C. Z., Dec. 15.

HOTEL TIVOLI.

Schedule of Rates Effective January 1, 1908.

TO HEADS OF DEPARTMENTS AND DIVISIONS:

The schedule of rates at Hotel Tivoli, as given below, are effective January 1, 1908.

Please note that no credit will be extended to employes, as the purpose of our system of coupon books is intended to provide for such accommodation. Bills of employes unpaid at the time of departure will not be subject to the discount, and will be made out at the regular non employe transient rate and forwarded immediately to the Disbursing Officer. Will you kindly advise your gold employes accordingly?

JACKSON SMITH,
Manager.

DAILY RATES—NON-EMPLOYES.

Meals.		Grade	*Rooms.* 1 in room	2 in room
Breakfast	$ .50	1	$1.50	$2.25
Luncheon	1.00	2	2.50	3.50
Dinner	1.25	3	3.50	5.00
		3a	4.00	5.50
		*3	4.50	6.50
		*3a	5.00	7.50

* With bath.

EMPLOYES—TRANSIENT.

Meals.		Grade	*Rooms.* 1 in room	2 in room
Breakfast	$ .50	1	$1.00	$1.50
Luncheon	.50	2	1.50	2.00
Dinner	1.00	3	2.00	3.00
		3a	2.50	3.50
		*3	2.75	4.00
		*3a	3.00	4.50

* With bath.

Bills must be paid in coupons only, and at time of leaving, except on special order from the Manager of the Department of Labor, Quarters and Subsistence.

EMPLOYES—MONTHLY.

Room only. Grade	1 in room	2 in room	*Room and Board.* Grade	1 in room	2 in room
1	$12.50	$15.00	1	$47.50	$85.00
2	20.00	25.00	2	55.00	95.00
3	25.00	35.00	3	60.00	105.00
*3	40.00	50.00	*3	75.00	120.00

* With bath.

Monthly rate for meals without room, $35.

These rates are for employes regularly assigned to quarters or authorized by special order of the Manager of the Department of Labor, Quarters and Subsistence, and may be paid in cash or coupons.

NON-EMPLOYES—MONTHLY.

Room only. Grade	1 in room	2 in room	*Room and Board.* Grade	1 in room	2 in room
1	$30.00	$55.00	1	$ 5.00	$145.00
2	45.00	75.00	2	90.00	165.00
3	60.00	100.00	3	105.00	190.00
*3	75.00	135.00	*3	120.00	225.00

* With bath.

Monthly rate for meals without room, $45.

Open accounts will not be permitted. Guests must be required to pay their bills upon leaving.

Accounts of transient employes unpaid at time of leaving will be made up at the non-employes' transient rate, and sent immediately to the Disbursing Officer.

Bills of guests remaining a week or over must be collected weekly, unless by special order of the Manager of the Department of Labor, Quarters and Subsistence.

A charge of 50 cents extra must be made for all meals sent to rooms.

Rate for Grade 3 rooms en suite (two rooms), with bath, occupied by two persons, non-employes, will be $8 per day. When occupied by more than two, the charge will be on the basis of $6.50 per day for two, and $3.50 per day for the others.

Grade 3a rooms en suite (two rooms), with bath, occupied by two persons, non-employes, will be at the rate of $9 per day. When occupied by more than two, the charge will be on the basis of $7.50 per day for two, and $4 per day for the others.

Employes will be charged $4.75 for Grade 3 rooms en suite (two rooms), with bath, when two persons occupy a suite. When more than two persons occupy one suite, the charge to employes will be $4 for two, and $2 each for the others.

Employes will be charged $5.50 for Grade 3a rooms en suite (two rooms), with bath, when two persons occupy a suite. When more than two occupy one suite, the charge to employes will be $4.50 for two, and $2.50 each for the others.

Two in a room is the full capacity of same, but in cases where it is necessary temporarily for more than two persons to occupy a room, the charge for the additional person or persons will be at the rate per person of 75 cents for Grade 1, $1 for Grade 2, $1.50 for Grade 3, and $2 for the two grades of Grade 3 and 3a, with bath. This applies to employes and non-employes.

Rate for "President" suite will be $30 per day when occupied by four or less, including sitting room. Without the sitting room, the rate will be $20 per day.

Persons registering on American plan must pay for all meals unless one day's meals or more are missed consecutively, in which case notice must be given to the clerk IN ADVANCE in order to secure credit.

RATES FOR SERVANTS: When occupying room, regular rate for room; half-rate for meals. Occupying cot in room or bath-room, or room in regular servants' quarters, half usual room rate for first-grade room.

RATES FOR CHILDREN. Under 12, occupying room with parents (requiring no extra bed), no charge for room; half rate for meals where occupying seat at table. Over 12 years of age, full rates will be charged.

JACKSON SMITH,
Manager.

New Year's Day Athletic Meet.

The athletic meet to be held under the auspices of the Y. M. C. A. at Ancon park on New Year's Day, will begin at 9:30 a. m. The events to be decided will consist of 100-yard dash, 220-yard dash, 440-yard run, 880-yard run, one mile relay race, pole vault, running broad jump, running high jump, shot put, throwing baseball, and circling the bases. The two last events are for members of organized baseball teams only. Prizes, consisting of a gold medal for first place, silver medal for second and a bronze medal for third, will be awarded in each event. Music will be furnished by the I. C. C. band. A special train will leave Colon at 6:25 a. m., due at Panama at 8:50 a. m. It will stop at all intermediate stations one hour later than regular passenger train No. 3. Transportation on this train will be free to holders of athletic meet tickets, which are on sale at 50 cents each, at the ticket offices of the Panama railroad and at all Commission club houses. The return trip can be made on any passenger train by the regular train transportation. The entries for the meet are as follows:

100-yard dash—D. Shannon, R. Gamble, J. Murray, R. Coulter, J. King, I. Catlin, W. Holstead, J. Harding, Culebra Y. M. C. A.; H. Ham, R. Kennedy, M. P. and M.; H. Simms, G. Gustavson, Empire Y. M. C. A.; B. Culbertson, Cristobal Y. M. C. A.; J. Huff, Culebra Baseball club; L. Levvy, G. Ferris, D. Kenney, W. H. Starr, Gorgona Y. M. C. A.

220-yard dash—D. J. Shannon, R. Gamble, J. Murray, J. King, I. Catlin, J. Harding, Culebra Y. M. C. A.; M. Rupp, M. P. and M.; A. Heinrich, H. Simms, G. Gustavson, Empire Y. M. C. A.; B. Culbertson, Cristobal Y. M. C. A.; J. Huff, Culebra Baseball Club; G. Ferris, D. Kenney, W. H. Starr, Gorgona Y. M. C. A.

440-yard dash—J. Murray, W. Starrin, G. Yingling, A. MacNeill, C. Roper, R. Booth, Culebra Y. M. C. A.; H. Bergert, M. Rupp, M. P. and M.; H. Simms, Empire Y. M. C. A.; C. Davis, Gorgona Y. M. C. A.

880-yard run—W. Starrin, C. Roper, Culebra Y. M. C. A.; H. Bergert, Q. A. Hall, M. Rupp, R. Kennedy, W. Brown, M. P. and M.; H. Simms, Empire Y. M. C. A.; C. Porter, A. Loane, D. Fletcher, Cristobal Y. M. C. A.; H. McKeowen, C. Davis, L. Hennen, H. Tiernan, Gorgona Y. M. C. A.

Pole vault—R. Oliver, Culebra Y. M. C. A.; H. Simms, Empire Y. M. C. A.; A. Loane, D. Fletcher, R. Loague, Cristobal Y. M. C. A.; G. Ferris, H. McKeowen, S. Lasker, G. Jenkins, Gorgona Y. M. C. A.

12-pound shot put—C. Harrington, R. Oliver, R. Booth, J. Harding, Culebra Y. M. C. A.; D. Fletcher, Cristobal Y. M. C. A.; G. Ferris, S. Lasker, G. Jenkins, Gorgona Y. M. C. A.

Running broad jump—D. Shannon, C. Harrington, R. Oliver, R. Booth, I. Catlin, Culebra Y. M. C. A.; R. Chapple, M. P. and M.; A. Heinrich, H. Simms, Empire Y. M. C. A.; B. Culbertson, Cristobal Y. M. C. A.; L. Levvy, G. Ferris, Gorgona Y. M. C. A.

Running high jump—D. Shannon, R. Booth, I. Catlin, Culebra Y. M. C. A.; A. Heinrich, Empire Y. M. C. A.; D. Fletcher, Cristobal Y. M. C. A.; G. Ferris, Gorgona Y. M. C. A.

Baseball throw—G. Yingling, F. Roberts, A. Richards, I. Fleichman, I. C. C. Baseball Club; J. King, Empire Baseball Club; R. Booth, J. Calvit, Gorgona Baseball Club, R. Chapple, M. P. and M.; B. Culbertson, Cristobal Baseball Club.

Circling the bases—R. Gamble, I. Fleichman, I. C. C. Baseball Club; J. King, Empire Baseball Club; F. Manusch, R. Kennedy, M. P. and M. Baseball Club; B Culbertson, Cristobal Baseball Club; J. Huff, Culebra Baseball Club.

One-mile relay—Shannon, King, Yingling, MacNeill, Catlin, Hard, Culebra Y. M. C. A.; Bergert, Hall, Ham, Rupp, Kennedy, Brown, M. P. and M.; Supple, Porter, Culbertson, Fletcher, Loague, Cristobal Y. M. C. A.; Davis, Ebdon, Jenkins, Kenney, Tiernan, Gorgona Y. M. C. A.

There will also be a game of baseball at Ancon park at 2:30 p. m. between the Empire and M. P. and M. teams.

Information Wanted.

Information is desired in the States regarding the whereabouts of Edward Bergen, plumber, who is the only son of a widow living in Boston and was last heard from by his mother in June, 1906. He left the Isthmian Canal service on April 21, 1906. Information is also wanted concerning the whereabouts of E. W. Rodeman, steam engineer, who left the Isthmian Canal service on November 20, 1907. His wife and one child died recently at Coney Island, New York. He has two children still living, aged 4 and 6 years.

Any information which may be sent to THE CANAL RECORD about either of the above named persons will be forwarded to inquiring relatives in the States.

OFFICIAL CIRCULARS.

Sixty-Trip Tickets.

CIRCULAR NO. 150:

Commencing January 1, a new form of Sixty-Trip Ticket will be used for the transportation of employes on official business. The following rules will govern the issuance of this form of transportation:

(1) All Sixty-Trip Tickets will be issued direct from the Chairman's office.

(2) Requests for Sixty-Trip Tickets will be made in duplicate on form No. 147 C. E., a copy of which is attached. The Stationer and Printer will furnish a supply of these forms on regular requisition.

(3) No tickets will be issued unless the detailed information called for is furnished, and the actual necessity for issuance is apparent.

(4) Requests for this form of transportation should not be made unless the employe's duties require him to travel along the line at least three times a week.

(5) No employe should have more than one ticket in his possession, and the cover or partially used book previously issued should be returned to this office immediately upon receipt of new ticket.

(6) The instructions for use printed on the ticket must be strictly adhered to.

(7) Employes holding Sixty-Trip Tickets should be instructed to turn them in for cancellation on the day the new form of ticket goes into effect, as conductors will not honor any old form tickets after that date.

(8) In the event of an employe leaving the service, or being transferred to another Division, any Sixty-Trip Ticket which may have been issued to him must be taken up and returned to this office for cancellation.

(9) A supply of "Requests for Sixty-Trip Tickets" will be forwarded you under separate cover. Kindly fill out requests for those employes in your department whose duties necessitate the use of Sixty-Trip Tickets and forward to this office at once, in order that no confusion may result through the inauguration of this system.

D. D. GAILLARD,
Acting Chairman
and Chief Engineer.

Culebra, Dec. 23.

Deductions from Pay of Contract Laborers.

CIRCULAR NO. 151:

Deductions from the pay of contract laborers should be made in the following order:

1. Commissary books.
2. Subsistence.
3. Transportation.

After the charges for Commissary books and Subsistence have been deducted, if the amount remaining due to the employe is not sufficient to cover monthly charge for Transportation, the entire balance due shall be deducted for this account, and the balance uncared for during that month shall be deducted from his pay the next month in *addition* to the regular monthly deduction.

(Sgd.) D. D. GAILLARD,
Acting Chairman.

Culebra, Dec. 24.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Jan. 1, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Busch, E. W.
Carter, Miss Elizabeth
Cohn, Bernard
Davenport, L. S.
Duhaney, Simeon
Duncan, Miss Jessie
Edmiston, J. S.
Ellis, G.
Ely, A. L.
Greenwood, Arthur
Hall, James A.
Haasen, Chris
Homan, H.
Hogan, Guy E.
Johnson, Jul.
Johnston, J. W.
King, Fred Jos.
Lawton, John M.
Loveless, Harold
Lynch, Michael
Malmo, Robt
Noble, Chas E.
Oncent, Joseph
Perry, Ralph W.
Rowlan, Miss Laura
Rendy, Wm. T.
Sehr, Mike
Speir, A. G.
Strong, Miss Ruth
Weber, Harry

The steamship *Eastlands* sailed from Gulfport, Miss., on December 21, with a cargo of lumber and piling for the Commission, and should arrive at Cristobal about January 1.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending December 26:

FRESH MEATS.		Price. CTS.
Beef, sirloin, roast	*per lb...*	*22*
Beef, rump, roast	*do*	*18*
Beef, Porterhouse	*do*	*25*
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	*16*
Beef, rib-roast, second-cut	*do*	*14*
Beef, chuck-roast	*do*	*11*
Beef, soup	*do*	*6*
Beef, stew	*do*	*8*
Beef, corned	*do*	*10* *12*
Steaks, sirloin	*do*	*22*
Steaks, Porterhouse	*do*	*25*
Steaks, rump	*do*	*18*
Steaks, tenderloin	*do*	*20*
Steaks, round	*do*	*12½*
Veal, cutlets	*do*	*21*
Veal, short-cut chops	*do*	*20*
Veal, loin	*do*	*13*
Veal, entire forequarters	*do*	*9*
Veal, for stewing	*do*	*9*
Mutton, entire forequarters	*do*	*9*
Mutton, short-cut chops	*do*	*18*
Mutton, leg	*do*	*14*
Lamb, for stewing	*do*	*10*
Lamb, entire forequarters	*do*	*10*
Lamb, short-cut chops	*do*	*22*
Lamb, legs	*do*	*18*
Pork, cuts	*do*	*20*
MISCELLANEOUS.		
Livers, beef	*per lb...*	*9*
Sausage, pork	*do*	*16*
Sausage, Bologna	*do*	*15*
Sausage, Frankfurter	*do*	*15*
Sweet bread, veal	*each...*	*1.20*
Sweet bread, beef	*per lb...*	*25*
Tripe, pickled, Honeycomb	*do*	*12*
Oysters, ½-gallon kegs	*each...*	*70*
Oysters, 1-qt. tins, square	*do*	*45*
Oysters, 1-qt. tins, round	*do*	*55*
Pigs' tongues	*per lb...*	*12*
POULTRY AND GAME.		
Chickens, dressed (milk-fed)	*each...*	*†1.15*
Ducks, fatted	*do*	*85*
Turkeys	*per lb...*	*25*
Broilers, (chicken frys)	*each...*	*75*
Squabs	*do*	*30*
Eggs, fresh	*per dozen*	*†45*
Geese (about 10-lb)	*each...*	*2 00*
Fresh fish (3 to 6 lbs)	*per lb...*	*14*
CURED MEATS AND LARD.		
Bacon, strips	*per lb...*	*23*
Bacon, English breakfast, sliced	*do*	*§26*
Ham, sugar-cured, sliced	*do*	*§25*
Ham, one-half (for boiling)	*do*	*§20*
Ham, Yorkshire (imported)	*do*	*25*
Hams, Westphalia	*do*	*45*
DAIRY PRODUCTS.		
Butter, prints, prime quality	*per lb...*	*38*
Cheese, cream, Phila.	*each*	*22*
Cheese, Neufchatel	*do*	*6*
Cheese, Roquefort	*per lb...*	*45*
Cheese, Young America	*do*	*22*
Cheese, Swiss	*per lb...*	*30*
Cheese, Gouda	*do*	*30*
Cheese, Edam	*each...*	*90*
Milk	*quart*	*15*
FRUITS AND VEGETABLES.		
Apples	*per lb...*	*5½*
Apples, fancy table	*per lb...*	*8*
Bananas	*per dozen*	*5*
Cabbage	*per lb ..*	*†2*
Carrots	*do*	*3½*
Cauliflower	*do*	**7*
Cranberries	*do*	*10*
Celery	*bunch*	*18*
Cucumbers	*per lb...*	*†28*
Egg Plant	*per lb...*	*10*
Grapes	*do*	*†14*
Grape Fruit	*each*	*3*
Lettuce	*per lb ..*	*14*
Limes	*per bun..*	*30*
Onions	*per lb ..*	*2*
Oranges	*per dozen*	*12*
Pineapples	*each...*	*20*
Plantains	*dozen...*	*12*
Pumpkins	*per lb ..*	*5*
Radishes	*do*	*6*
Sauer kraut	*do*	*3½*
Squash	*do*	*†2*
Squash, Hubbard	*each*	*5*
Sweet Potatoes, American	*per lb...*	*3½*
Turnips, yellow and white	*do*	*3*
White potatoes	*do*	*†2½*

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* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from Commissaries.*

NEW ARTICLES		Price. CTS.
Knives, stag, pocket, stock No. 38,519	*each*	*90*
Knives, bone, table, stock No. 38,521	*set....*	*4.15*
Knives, ivory, table, stock No. 38,522	*set*	*28.70*
Knives, ebonite, French cook, stock No. 38,523	*each...*	*90*
Knives, ebonite, French cook, stock No. 38,524	*do*	*1.35*
Knives, ebonite, French cook, stock No 38,525	*do*	*1.75*
Scissors, stock No. 38,526	*do*	*25*
Scissors, stock No. 38,527	*do*	*65*
Scissors, stock No. 38,528	*do*	*45*
Scissors, stock No. 38,531	*do*	*50*
Scissors, stock No. 38,529	*do*	*70*
Razors, stock No. 38,534	*do*	*80*
Razors, stock No. 38,535	*case*	*23.75*
Razors, stock No 38,536	*do*	*6.00*
Chairs, golden oak, stock No. 38,444	*each...*	*2 50*
Chairs, desk, stock No. 38,448	*do*	*5 55*
Rockers, golden oak, stock No. 38,445	*do*	*4.30*
Rockers, golden oak, stock No. 38,446	*do*	*4 30*
Stools, camp, stock No 38,447	*do*	*90*
Biggins, coffee, No. 030, stock No. 38,432	*do*	*45*
Measures, enamel, No. 6, stock No. 38,543	*do*	*38*
Measures, enamel, No. 4, stock No. 38,544	*do*	*20*
Measures, enameled, No. 5, stock No. 38,545	*do*	*26*
Measures, enameled, No. 3, stock No. 38,546	*do*	*15*
Measures, enameled, No. 2, stock No 38,547	*do*	*12*
Measures, enameled, No. 1, stock No. 38,548	*do*	*10*
Buckets, covered, 1½-qt., stock No 38,549	*do*	*16*
Pails, dinner, No. 040, stock No. 38,551	*do*	*50*
Moulds, round, cake, No. 43, stock No 38,552	*do*	*18*
Ladles, deep, No. 10, stock No. 38,553	*do*	*9*
Plates, Pie, No. 10, stock No. 38,554	*do*	*10*
Pans, milk, ½-qt, stock No. 38,555	*do*	*8*
Pans, milk, 1-qt., stock No. 38,556	*do*	*8*
Pans, milk, 1½-qt., stock No. 38,557	*do*	*9*
Pans, milk, 5-qt, stock No. 38,558	*do*	*16*
Pans, deep dish, No. 30, stock No. 38,559	*do*	*90*
Pans, stove, oblong, No. 13, stock No. 38,561	*do*	*30*
Pans, stove, oblong, No. 14, stock No 38,562	*do*	*33*
Pans, stove, oblong, No. 15, stock No 38,563	*do*	*35*
Pans, stove, oblong, No. 16, stock No. 38,564	*do*	*40*
Pans, stove, oblong, No. 17, stock No. 38,565	*do*	*45*
Chairs, reception, No. 7745, stock No 38,566	*do*	*10.75*
Chairs, large arm, No. 6844, stock No. 38,567	*do*	*10.75*
Rockers, ladies', No. 104b, stock No. 38,568	*do*	*4.30*
Rockers, ladies', No. 68201, stock No. 38,569	*do*	*6.80*
Rockers, ladies', No. 6821b, stock No 38,571	*do*	*7.50*
Rockers, comfort, No. 6838b, stock No. 38,572	*do*	*7.15*
Rockers, comfort, No. 7057b, stock No. 38,573	*do*	*17.20*
Sofas, No 6232f stock No. 38,574	*do*	*31 50*
Tables, No. 6701l, stock No 38,575	*do*	*5.40*
Tables, No 6385s, stock No. 38,576	*do*	*5.40*
Tables, oblong, No. 6384, stock No 38,577	*do*	*4 65*
Rockers, ladies', No. 6830b, stock No 38,578	*do*	*11.10*
Rockers, ladies', No. 6830a, stock No 38,579	*do*	*11.10*
Chairs, reception, No. 6831a, stock No 38,581	*do*	*8 60*
Sofas, No 6836f, stock No 38,582	*do*	*18 90*
Suits, wash, No s1835, stock No. 37,937	*suit...*	*2.95*
Pants, wash, No. s1835, stock No. 37,938	*pair...*	*1.25*
Suits, wash, No. s2645, stock No. 37,939	*suit...*	*2.95*
Trunks, orient leather, No. 167, 36-inch, stock No. 38,122	*each...*	*24.75*
Kits, stitched, hunting, No. 539, 22 inch, stock No. 38,123	*do*	*11.30*
Leggins, leather, No. 2, stock No. 38,124	*pair...*	*2.30*
Leggins, leather, No. 1, stock No 38,125	*do*	*3.15*
Leggins leather, No. 3, stock No. 38,126	*do*	*2.40*
Kits, stitched, hunting, No. 640, 16-inch, stock No 38,128	*each...*	*4.00*
Trunks, orient leather, No. 165, 36-inch, stock No 38,144	*do*	*18.50*
Cases, gents', fitted with E. P. tops, stock No 38,145	*case...*	*17.50*
Brushes and combs, military, in case, stock No. 38,146	*set...*	*1.40*

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.

Maj. D. D. Gaillard, U. S. A., Culebra.

Maj. Wm. L. Sibert, U. S. A., Culebra.

Civil Engineer H. H. Rousseau, U. S. N., Culebra.

Mr. Jo C. S. Blackburn, Ancon.

Col. W. C. Gorgas, U. S. A., Ancon.

Mr. Jackson Smith, Culebra.

Mr. Joseph Bucklin Bishop, Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.

Wm. Howard May, Secretary.

M. B. DePutron, Chief Clerk.

A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.

W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.

D. W. Bolich, Division Engineer, Empire.

S. J. Kennedy, Chief Clerk.

Louis K. Rourke, Assistant Division Engineer, Empire.

Wm. Gerig, Division Engineer, Gatun.

Mrs. C. L. MacPherson, Chief Clerk.

W. G. Comber, Division Engineer, La Boca.

David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.

R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.

Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer.

E. P. Thompson, Chief Clerk.

Wm. Gerig, Division Engineer, Cristobal.

Caleb M. Saville, Assistant Division Engineer, Gatun.

Sydney B. Williamson, Division Engineer, Corozal.

E. A. LeMay, Chief Clerk.

W. G. Comber, Division Engineer, La Boca.

Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.

Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.

L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.

R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.

D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.

J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.

E. C. McFarland, Chief Clerk.

George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.

F. W. Doty, Chief Clerk.

Earl J. Banta, Mechanical Engineer.

A. L. Robinson, Electrical Engineer.

W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.

P. O. Wright, jr., Architect, Culebra.

J. H. Barbour, Chief Clerk.

Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.

Max Dyer, Chief Clerk, Cristobal.

W. C. Haskins, Chief Clerk, Ancon.

Wm. Krugel, Stationer and Printer, Ancon.

Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.

H. D. Reed, Executive Secretary, Ancon.

J. K. Baxter, Chief Clerk, Ancon.

Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.

E. Lewis Baker, Deputy Collector, Cristobal.

Herman A. Gudger, Deputy Collector, Ancon.

George R. Shanton, Chief of Police, Ancon.

D. E. McDonald, Chief Clerk.

C. E. Weidmaa, Chief, Fire Department, Cristobal.

Charles F. Koerner, Asst. Chief, Cristobal.

Addison Bligh. Chief Clerk.

Geo. L. Campen, Superintendent of Public Works, Ancon.

Inocencio Galindo, Legal Adviser, Ancon

David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.

H. A. Gudger, Associate Justice, Empire.

Lorin C. Collins, Associate Justice, Cristobal.

Walter Emery, Clerk of Court, Ancon.

Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.

Walter Emery, Circuit Court Clerk, Ancon.

Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,

Elbert M. Goolsby, Circuit Court Clerk, Empire.

Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.

Nelson R. Johnson, Circuit Court Clerk, Cristobal.

Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.

Prosecuting Attorney: George M. Shontz, Ancon.

Translators: F. H. Sheibley and Charles M. Brown.

M. C. Rerdell, Senior District Judge, Cristobal

Thomas E. Brown, jr., District Judge, Cristobal.

S. E. Blackburn, District Judge, La Boca.

Edgar S. Garrison, District Judge, Empire.

R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.

Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.

Harry C. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.

Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.

Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.

J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.

Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.

Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.

Dr. John H. Purnell, Health Officer, Panama.

Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.

R. E. Wood, Assistant Manager, Culebra.

S. C. Klauber, Chief Clerk.

J. M. Maguire, Ancon; C. C. McColley, Empire; Chas. L. Parker, Gorgona; Edgar Lowe, Cristobal, division superintendents.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.

Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.

W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.

W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.

W. F. Shipley, Sales Manager, Cristobal.

S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Rainfall from December 1 to 28, 1907, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Total.	Maximum in one day.
Atlantic Slope.		
Cristobal	9.25	2.28
Brazos Brook	5.48	1.75
Gatun	5.38	1.57
Bohio	2.87	.99
Tabernilla	4.77	1.56
San Pablo	3.66	.99
Central Section.		
Bas Obispo	2.20	.89
Gamboa	2.93	.93
Empire	1.47	.54
Camacho Dam	2.18	1.03
Culebra	2.30	.80
Rio Grande	2.51	.75
Pacific Slope.		
La Boca	4.55	.95
Ancon	3.46	1.41
Naos	1.08	.31
Chagres Valley.		
Alhajuela	1.51	.95

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Dec. 28*
La Plata	*R.M.*	*Saturday*	*Dec. 28*
Advance	*P.RR.*	*Monday*	*Dec. 30*
Panama	*P.R.R.*	*Saturday*	*Jan. 4*
Prinz Aug. Wilhelm	*H.-A.*	*Saturday*	*Jan. 4*
Dunottar Castle	*P.R.R.*	*Thursday*	*Jan. 9*
Tagus	*R.-M.*	*Saturday*	*Jan. 11*
Siberia	*H.-A.*	*Saturday*	*Jan. 11*
Finance	*P.R.R.*	*Tuesday*	*Jan. 14*
Prinz Joachim	*H.-A.*	*Saturday*	*Jan. 18*
Colon	*P.R.R.*	*Monday*	*Jan. 20*
Advance	*P.R.R.*	*Saturday*	*Jan. 25*
Prinz Eitel Friedrich	*H.-A.*	*Saturday*	*Jan. 25*
Magdalena	*R.M.*	*Saturday*	*Jan. 25*
Panama	*P.R.R.*	*Thursday*	*Jan. 30*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Dunottar Castle	*P.RR.*	*Thursday*	*Dec. 26*
Finance	*PRR.*	*Tuesday*	*Dec. 31*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Dec. 31*
Tagus	*R.M.*	*Wednesday*	*Jan. 1*
Altai	*H.-A.*	*Saturday*	*Jan. 4*
Colon	*P.R.R.*	*Monday*	*Jan. 6*
Advance	*P.R.R.*	*Saturday*	*Jan. 11*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Jan. 14*
Magdalena	*R.-M.*	*Wednesday*	*Jan. 15*
Panama	*P.R.R.*	*Friday*	*Jan. 17*
Venetia	*H.-A.*	*Saturday*	*Jan. 18*
Prinz Aug. Wilhelm	*H.-A.*	*Tuesday*	*Jan. 21*
Dunottar Castle	*P.R.R.*	*Wednesday*	*Jan. 22*
Finance	*P.R.R.*	*Monday*	*Jan. 27*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Jan. 28*
Atrato	*R.-M.*	*Wednesday*	*Jan. 29*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

La Plata	*R.M.*	*Tuesday*	*Jan. 7*
Tagus	*R.M.*	*Tuesday*	*Jan. 21*
Magdalena	*R.M.*	*Tuesday*	*Feb. 4*
Atrato	*R.M.*	*Tuesday*	*Feb. 18*
Trent	*R.M.*	*Tuesday*	*Mch. 3*

The Panama railroad steamships sail at 3 p.m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The Leylnnd Line steamer *Mexican* will sail for New Orleans, via Kingston, Jamaica, about Jan. 14, 1908.

Vaccination.

TO ALL CONCERNED:

In order to properly enforce the vaccination ordinance, and at the same time to accommodate employes returning from their vacation, and in order to prevent unnecessary vaccination and friction resulting therefrom, this circular is to inform such employes that only a vaccination that has taken in recent years is required and all persons who have been successfully vaccinated, in the opinion of the Quarantine Officer, can secure a certificate to that effect, which will remain effective and be accepted as evidence in this particular for a period of three years. This certificate will be accepted by the surgeons on the Panama railroad steamers as evidence of immunity, and it will not be necessary to revaccinate persons having such certificate.

This certificate of vaccination can be secured from the Quarantine Officer of Colon, and the Quarantine Officer at Panama, but applicants for the same will be required to show such scars of vaccination before this certificate is granted.

(Sgd.) C. C. MCCULLOCH, JR.,
Acting Chief Sanitary Officer.

Ancon, C. Z., Nov. 23.

CANAL RECORD

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The Canal Record

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THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed by the full name and address of the writer.

NOTES OF PROGRESS.

Canal Excavation to Date.

There was excavated along the line of the Canal during the year 1907, a total of 15,764,095 cubic yards. Of this amount 10,959,967 cubic yards were removed by steam shovels, and 4,804,128 cubic yards by dredges. From the Culebra Division alone 9,177,130 cubic yards were removed, all except 207,558 cubic yards being taken from the Canal prism.

The subjoined table shows the character of the year's excavation and the portion of it accomplished by each of the various divisions:

BY STEAM SHOVELS.

Division.	*In Prism.* CU. YDS.	*Outside.* CU YDS.
Culebra	8,969,572	207,558
Chagres	192,769	....
Colon (Mindi)	172,851	....
Gatun locks, dams and spillway	1,107,539	232,620
La Boca locks, dams and spillway	39,386	37,652
Total dry excavation	10,482,137	477,830

BY DREDGES.

Division.	*In Prism.* CU YDS.	*Outside.* CU YDS.
Colon	1,969,316	691,023
La Boca	1,557,695	586,094
Total wet excavation	3,527,011	1,277,117
Grand total	14,009,148	1,754,947

Grand total, dry excavation 10,959,967 cu. yds.
Grand total, wet excavation 4,804,128 cu. yds.
Grand total 15,764,095 cu. yds.

When the work was taken over by the Americans from the French, in May, 1904, the number of cubic yards to be removed from the Canal prism in the Culebra Division was estimated at 57,600,000. There had been removed from the prism in that Division, at the close of 1907, in round numbers, 12,800,000 cubic yards, leaving 44,800,000 cubic yards still to be removed. At the present rate of progress this should be taken out in less than five years.

The grand total of all excavation, dry and wet, inside and outside the Canal prism, since the Americans took control in May, 1904, is 22,758,291 cubic yards. Of this amount 21,600,565 cubic yards have been removed since January 1, 1906, when the real work of excavation began, there having been only 1,156,726 cubic yards removed in 1904 and 1905. The total excavation by the French during the ten years in which they were engaged in active operation was, according to figures revised from official reports, 81,548,000 cubic yards.

Highest Daily Shovel Record.

The largest daily output by steam shovels in the Culebra Division since work was commenced by the United States was 46,732 cubic yards on December 31, 1907. Forty-three shovels were at work on that day, of which two were 45-ton, ten 70-ton, and thirty-one 95-ton shovels. The average output per shovel for all shovels on the work for the eight-hour day was 1,086½ cubic yards. In handling this material the following cars were loaded: 1,451 Lidgerwood flats, 1,104 Western dumps (small), 248 Western dumps (large), a total of 2,803 car loads. The total number of trains handled on this day was 347, and the total number of locomotives in use for all purposes was 130.

Two-Million Mark Passed.

The grand total of excavation during December was 2,200,539 cubic yards. For the first time on record the two-million cubic yard limit of monthly excavation was not only reached but passed. The largest preceding monthly record was that for October last, 1,868,729 cubic yards, which the December total exceeds by 331,810 cubic yards. Of the 2,200,539 cubic yards excavated, 2,096,542 were taken from the Canal prism—1,318,958 by steam shovels and 777,604 by dredges.

In the Culebra Division the million cubic yard limit was not only reached but passed for the first time on record, the total excavation there being 1,025,485 cubic yards. The largest preceding monthly total for this division was that of April last, 879,527 cubic yards, which the December total exceeds by 145,958 cubic yards. The average number of steam shovels at work was virtually the same in both months.

The December excavation at Gatun locks and spillway, and in the Mindi and Chagres Divisions, was in each instance the largest on record.

From the Gatun locks and spillway there were taken by steam shovels 230,551 cubic yards; from Mindi, Chagres and La Boca Divisions 152,117 cubic yards. The total by dredges at all points was 792,386 cubic yards. On accessory work outside of Canal prism 103,997 cubic yards were removed—89,215 by steam shovels and 14,782 by dredges.

The detailed excavation for the month is appended:

Department of Excavation and Dredging.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Culebra Division	1,006,026	19,459	1,025,485
Mindi	46,945	....	46,945
Chagres Division	98,652	....	98,652
Total	1,151,623	19,459	1,171,082
Dredges—			
Colon Dredging Division	428,053	14,782	442,835
La Boca Dredging Division	349,551	....	349,551
Total	777,604	14,782	792,386
Grand total	1,929,227	34,241	1,963,468

Department of Lock and Dam Construction.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards).
Steam shovels—			
Gatun locks	160,795	....	160,795
Gatun spillway	....	69,756	69,756
La Boca locks	6,520	....	6,520
Total	167,315	69,756	237,071

Entire Canal.

How excavated.	In Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
By steam shovels	1,318,938	89,215	1,408,153
By dredges	777,604	14,782	792,386
Total	2,096,542	103,997	2,200,539

Mean rainfall along Canal (eleven stations), 3.85 inches.

Figures of monthly excavation are based upon telephone reports from division engineers and are subject to slight alterations when official reports are received.

Gatun Steam Shovel Work.

The maximum output of the five steam shovels at Gatun for the week ending December 28 was made on Saturday, December 21, on which date 6,205 cubic yards, car measurement, were excavated, being an average of 1,241 cubic yards per shovel per day.

During the same period, there were loaded by steam shovels Nos. 113 and 114, at the spillway, 15,965 cubic yards, car measurement. The largest day's loading for both

NOTES OF PROGRESS.

(Continued)

shovels was on the 26th, when 3,560 cubic yards were taken out. Steam shovel No. 114 made the largest output for any one day during the week, loading 1,920 cubic yards on December 26.

Dredging at La Boca.

The maximum daily output by the three dredges of the La Boca Dredging Division for the week ending January 4, scow measurement, was as follows: January 3, dredge A-2, 6,745 cubic yards; December 31, dredge 14, 6,908 cubic yards; December 30, dipper dredge, 3,920 cubic yards. The total output of each of the three dredges for the same period was: Dredge A-2, 31,669 cubic yards; dredge 14, 28,124 cubic yards, dipper dredge, 15,680 cubic yards. The total combined output for the week was 75,473 cubic yards.

Three New Public Markets.

The Chief of Division of Material and Supplies will shortly call for proposals for the construction of three public markets, to be located at Pedro Miguel, Las Cascadas and Gatun. These public markets will be similar to the one recently ordered to be constructed at Paraiso. The cost of the buildings will be paid out of Canal Zone revenues. All material will be furnished by the Commission.

Improving Health Conditions.

There were fewer sick employes in the various hospitals and sick camps of the Isthmian Canal Commission during the week ending December 28 than at any other time since June 15, 1907. The total number, which includes all Isthmian Canal Commission and Panama railroad employes, for the week was 898, and on June 15 the number of employes on the sick report was 888. The maximum number of employes sick during any one week of the period between June 15 and December 28, was 1,273, for the week ending July 27.

For the week ending December 29, 1906 there were 802 patients on the hospital report, or 96 less than in the corresponding week in 1907. Owing to the increase in the number of employes in 1907 the sick rate was less. In 1906 there were about 29,000 employes on the rolls of the Commission and Panama railroad, which with 802 sick in the hospital gave a sick rate of 28 per thousand. In 1907, with about 44,000 employes on the pay roll and a sick list of 898, the sick rate was only about 20 per thousand.

December Rainfall for Three Years.

Station.	1905.	1906.	1907.	Av'ge since station estab'd.	No. of rainy days
Atlantic Slope					
Cristobal	9.50	15.64	9.36	12.01	24
Brazos Brook	....	16.17	5.57	10.87	22
Gatun	11.89	18.69	5.53	12.04	20
Bohio	6.43	14.00	2.88	10.37	15
Tabernilla	....	....	4 83	....	15
San Pablo	....	....	2.88	....	14
Central Sec.					
Bas Obispo	6.78	......	2.26	8.97	13
Gamboa	6 68	11.68	2.96	6.89	15
Empire	5.62	10.54	1.47	5.64	10
Camacho	....	9.52	2.18	5.85	8
Culebra	6.23	9.09	2 30	8.06	11
Rio Grande	4.66	7.97	2 51	5.05	11
Pacific Slope					
La Boca	4.90	5.44	4.55	5 65	17
Ancon	4.04	5.52	3 46	3.13	17
Naos	....	4.74	1.08	3.16	10
Chagres Val.					
Alhajuela	3.54	10.80	1.51	6.01	8

Medals for Canal Employes.

President Roosevelt has not forgotten the promise, made in his speech at Cristobal at the close of his visit to the Isthmus in November, 1906, when he said:

"I shall see if it is not possible to provide for some little memorial, some mark, some badge, which will always distinguish the man who for a certain space of time has done his work well on this Isthmus, just as the button of the Grand Army distinguishes the man who did his work well in the Civil War."

The Washington correspondent of the New York *Tribune* asked the President about this matter on December 23 and was authorized to publish the following statement:

Medals of a suitable character are to be given to all citizens of the United States who have served the government satisfactorily on the Isthmus of Panama for two years A competent artist will be engaged and the design for a medal prepared. President Roosevelt is anxious that suitable tribute to, and recognition of service shall be shown by the government, and believes the effect will be salutary and wholesome.

Ownership of Zone Land.

A committee composed of J. G. Holcombe, Division Engineer; Geo. L. Campen, Superintendent of Public Works; Tom M. Cooke, Collector of Revenues, and R. Yung, Land Agent of the Panama railroad, was recently appointed to investigate and report on steps which should be taken in order to encourage leasing and cultivation of public land in the Canal Zone, The ownership of land in the Canal Zone is as follows:

Owned by the United States, by purchase from the New Panama Canal Company	52 11 sq. miles
Owned by the United States, by condemnation and purchase, since the provisional delimitation of the Zone	3.01 sq. miles
Public land held by the United States by cession from Panama under the Treaty	188.91 sq. miles
Owned by the Panama railroad by cession from Colombia and purchase from private owners	68.12 sq. miles
Owned by private persons	136.22 sq. miles
Total	488.37 sq. miles

Lands acquired by the United States by purchase from the Panama Canal Company are public property of the United States. Authority to lease such lands is derived from the Act of Congress, approved July 28, 1892, authorizing the Secretary of War to lease, in certain cases, property for a period not exceeding five years, lease to be revocable at any time.

The Division of Building Construction, during the month of December, 1907, finished the construction of 44 buildings, made repairs on 167, alterations on 4, and demolished 8 old buildings. The average number of employes at work during the month was 2036, of which number 542 were gold employes and 1494 silver employes.

The New Year's Day Athletic Meet.

The athletic meet held under the auspices of the Young Men's Christian Association at Ancon on New Year's Day, was an interesting exhibition, and the contestants were well distributed among the four club houses and other athletic organizations in the Zone. The Culebra Y. M. C. A. won first place, having 2 firsts, 3 seconds and 5 thirds to its credit, a total of 24 points. Cristobal Y. M. C. A. with 4 firsts and 2 thirds, and the M. P. & M. baseball team with 2 firsts and 4 seconds, tied for second place, each winning 22 points. Gorgona Y. M. C. A. was fourth with 11 points, the Gatun baseball club fifth with 10, Empire Y. M. C. A. sixth with 8, while the Gorgona and I. C. C. baseball clubs each won 1 point. The first event—100-yard dash—was started shortly after 9:30 and the different events followed each other promptly and were all well contested. There were about 200 spectators present. The officials were: A. Bruce Minear, referee; W. H. Baxley, starter; Dr. W. M. James, clerk of course; R. Goodman, scorer, assisted by a staff of field officials. L F. LaRose had general charge of the meet.

The winners in the various events were as follows:

100-yard dash—Culbertson, Cristobal Y. M. C. A., first; time, 12 seconds; Gustavson, Empire Y. M. C. A, second; Shannon, Culebra Y. M. C. A., third.

220-yard dash—Culbertson, Cristobal Y. M. C. A., first; time, 28 3-5 seconds; Shannon, Culebra Y. M. C. A., second; Simms, Empire Y. M. C. A., third.

440-yard dash—Roper, Culebra Y. M. C. A., first; time, 67 4-5 seconds; Bergert, Motive Power and Machinery, second; Starin, Culebra Y. M. C. A., third.

880-yard run—Hall, Motive Power and Machinery, first; time 2 minutes and 40 seconds; Bergert, Motive Power and Machinery, second; Roper, Culebra Y. M. C. A., third.

Twelve-pound shot-put—Herring, Culebra Y. M. C. A, first; distance; 39 feet 1 inch; Harrington, Culebra Y. M. C. A., second; Harding, Culebra Y. M. C. A., third.

Running high jump—Fletcher, Cristobal Y. M. C. A., first; height, 5 feet 3 inches; Ferris, Gorgona Y. M. C. A., second; Catlin, Culebra Y. M. C. A., third.

Pole vault—Fletcher, Cristobal Y. M. C. A., first; height, 9 feet 4 inches; Oliver, Culebra Y. M. C. A, second; Simms, Empire Y. M. C. A., third.

Running broad jump—Ferris, Gorgona Y. M. C. A., first, distance, 18 feet 9½ inches; Simms, Empire Y. M. C. A., second; Culbertson, Cristobal Y. M. C. A., third.

Baseball throw—Culbertson, Gatun Baseball Club, first; distance, 320 feet 6 inches; Chapple, Motive Power and Machinery, second; Calvit, Gorgona Baseball Club, third.

Circling the bases—Culbertson, Gatun Baseball Club, first; time, 16 seconds; Manusch, Motive Power and Machinery, second; King, I. C. C. Baseball Club, third.

RELAY RACE—1,200 YARDS—FOUR MEN.

1—M. P. and M.	*2—Gorg'na Y. M. C. A.*	*3—Cris'b'l Y. M. C. A.*	*4—Culebra Y. M. C. A.*
1 Ham	1 Levvy	1 Culb'rtsn	1 Harding
2 Bergert	2 Ferris	2 Porter	2 McNeil
3 Ball	3 Ebdon	3 Supple	3 Catlin
4 Brown	4 Davis	4 Fletcher	4 Roper

WEATHER CONDITIONS, CANAL ZONE, DECEMBER, 1907.

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.			Mean relative humidity.	Wind.				Precipitation.		
		Mean.	Mean maximum.	Mean minimum.		Prevailing direction.	Av hourly velocity in miles.	Maximum velocity in miles.	Total movement.	Number of rainy days.	Total.	Average since station established.
Cristobal	29.84	80	83	76	84	n e.	12	28	8,862	24	9 36	12 01
Bas Obispo	29.84	78	86	70	92	n.w.	5	19	3,428	13	2.26	8.97
Ancon	29.83	81	90	73	88	....	..	....	....	17	3.46	3.13
Naos	29.83	82	89	74	88	n.w.	8	27	6,097	10	1.08	3.16

COMMISSION BUILDINGS.

III.

Screening of Houses.

By P. O. Wright, Jr., Architect.

When the American Government decided to assume control of the construction of the Canal, the necessity for a thorough system of sanitation of the Isthmus was recognized, and it soon became evident that the screening of living quarters was one of the essential features of this system.

In view of the discovery in recent years that the propagation of yellow fever and malaria is by means of certain kinds of mosquitoes, it is necessary that the houses be protected against them until such a time as their extermination in the vicinity of the buildings is accomplished. This is especially necessary in the case of the mosquito propagating yellow fever, which is found usually in the cities or towns and whose nature it is to stay near the place where it was born, usually within the building. The malarial mosquito on the other hand, is a country or swamp mosquito that usually makes its appearance in the afternoon, or after dark, and is attracted by the light in the houses. Since the houses erected in connection with the construction of the Canal are scattered over more than 60 miles of territory under the differing conditions of country and city life, we have the case of the yellow fever mosquitoes within the building and content to remain there, and the malarial mosquitoes attracted by the light and trying to gain entrance. Those already within the building can be exterminated by fumigation and those without can be prevented from entering by screening.

More than three years ago, a method was devised by the Architectural Department for the effective screening of Commission buildings and, after much opposition to the character and extent of the work, the buildings are now as a rule being screened according to the method as originally planned. Without the screening of the buildings, it is doubtful if the work of digging the Canal could have been carried on by the Americans.

The necessary screening of buildings used as living quarters has been more of a determining factor in their design than any other single feature which has had to be considered. The general principles and details of screening, as recognized, and, so far as practicable, adopted in the construction of the buildings, may be classified as follows:

Wire—The wire should be No. 18 mesh; of bronze or brass. The presence of 1 per cent. of iron in the brass alloy has been found in many instances, to result in the corrosion and destruction of the screening. Iron wire should, therefore, not be used as it is quickly destroyed by rust even when protected by painting, plating or by galvanizing.

Doors—There should be as few doors as possible in the screening, preferably not more than two in any one building. No door from a kitchen should open to the outside of the building, but should lead to a screened porch or inner hallway. This tends to prevent servants from propping open the door and thus destroying the effectiveness of the screening of the entire house.

Verandas—On account of the great number of openings required in the houses, it has been found that the expense of screening the verandas which is approximately 60 cents a square yard is about the same as that of screening the openings, while the former method presents the following advantages:

1. It furnishes protection against mosquitoes to persons using the verandas in the evening.

2. It reduces the number of doors opening to the outside to a minimum, generally not more than two. The fewer the number of such doors to be carefully watched, and kept closed, the less the danger of mosquitoes entering the house.

3. There is less risk of mosquitoes entering through the screen doors of verandas than through the screen doors of rooms. Mosquitoes, being attracted by light, gather at the brightly illuminated doors and windows of the rooms, consequently when the doors or windows are opened there is a considerable number of mosquitoes ready to attempt entrance. The inward draft formed at the doors of rooms tends to the same result. On the other hand, the door of the screened veranda is not, as a rule, subject to the above conditions any more than the rest of the screening. For the same reasons any defect in the screening of doors and windows is more dangerous than a defect in the screening of the veranda.

In carrying out the general principles enumerated above, there are certain details to be considered in the screening of doors, windows and verandas, as follows:

Doors should be so arranged that it will be necessary to open them only when entering or leaving the building. They should be single, and should open outward, in no case should they be double-acting. They should be as small as possible to meet the requirements of the building. They should be protected by slats or heavy wire on the inside to prevent careless persons from breaking the screening by opening with the knee or elbow, and they should be provided with strong springs of positive action. All doors should be furnished with stops to prevent them from being opened beyond 90 degrees, thus destroying the springs.

Windows which are not protected by the screening of verandas, should be provided with fixed screens incapable of being opened. This necessitates in most cases the omission of outside blinds.

Screening on verandas should be placed on the outside of the woodwork to permit of cleaning the woodwork from the inside, and as a means of protection from injury to the screening. The lower portion should be protected by slats, railings, etc., for about three feet in height above the floor and a baseboard should be provided at the bottom with hinged or swinging sections so arranged that the rain water on the floor can be swept out when necessary.

In general, all screening should be so arranged that it will present the minimum possibilities for careless or wilful injury, the least temptation to servants or other careless persons to leave open the doors or windows, and the least opportunity to the ever watchful mosquito to makes its entry.

Ancon Amusement Association.

A meeting was held in the parlors of the Hotel Tivoli on Saturday evening, January 4, for the purpose of effecting an organization of the Ancon Amusement Association. It was a large and enthusiastic gathering, many persons from Corozal and La Boca, as well as from Ancon and Panama, being in attendance. A constitution and by-laws were adopted after general discussion. The dues of the association are to be one dollar per month, payable quarterly in advance. The work of the association is divided among six committees, the chairman of each committee to be a member of the board of directors, which is to have general charge of all the activities of the Association.

After the adoption of the constitution and by-laws, the association elected the following officers for the ensuing year:

President	Col. Tom M. Cooke
First vice president	Mr. J. M Maguire
Second vice president	Mr L. M. Lipsett
Secretary	Mr. J. P. Avis
Treasurer	Mr. C. C. Metcalf
Chairman athletic committee	Capt. G. R. Shanton
Chairman music committee	Mr. G L. Campen
Chairman publicity committee	Mr. W. Krugel
Committee indoor and outdoor entertainment	Dr Wm. Deeks
Chairman halls and buildings	Mr. J. St. C. Hunt
Chairman auditing committee	Mr. H. D Reed

Nearly two hundred persons have been enrolled as members and it is expected to increase this to four or five hundred in the near future. It is thought that the first entertainment will be a concert, by both amateur and professional talent. Excursion trips will be arranged for Taboga, Pearl Islands, Old Panama and other nearby points of interest. Field sports and other athletic events will be arranged, and various forms of indoor and outdoor entertainments, such as operas, concerts, musicals, lawn parties, etc.

The New Administration Building.

The new Administration Building on Ancon Hill is finished and those officials of the Isthmian Canal Commission who are to have their offices in it, are taking possession. The offices of the Head of the Department of Civil Administration, the Division of Posts, Customs and Revenues, and the Secretary of the Commission, are already established there. The Department of Sanitation will move in about January 20.

The ocean-going tug *E. C. Reynolds*, recently purchased by the Isthmian Canal Commission for service at the Pacific end of the Canal, sailed from Philadelphia about the middle of December and reported her arrival at Barbados on December 25, with all on board well, after a rough voyage to that point. The *Katherine Moran*, another sea-going tug, which sailed from New York on October 5, reported her departure from Callao, Peru, on January 3, and should reach La Boca about the middle of January.

An interesting and exciting game of baseball was played at Ancon on New Year's Day between the Empire and M. P. & M. teams. Empire finally won by the score of 1 to 0 after fifteen innings had been played. The attendance was about 600.

The steamship *Istria*, of the Kosmos line, arrived at La Boca on January 3 with 4,000 bags of coffee consigned to Atlantic ports of the United States via the Panama railroad and steamers from Colon. This is the first steamer of this line to bring a cargo billed through by this route.

SOCIAL LIFE OF THE ZONE.

Quarterly Meeting of the Canal Zone Federation of Women's Clubs at Cristobal.

The second quarterly meeting of the Canal Zone Federation of Women's Clubs was held at Cristobal, on Saturday, January 4. The first meeting took place in the Hotel Tivoli on October 12, 1907, when the Federation was organized under the direction of Miss Helen Varick Boswell, of the National Civic Federation.

Each club in the Zone sent four delegates and a number of club members attended as visitors. The Cristobal Women's Club had spared no effort to make the day memorable to the delegates. The hall of the Commission club house was decorated with flags, palms and vases of flowers. Promptly at 9 o'clock the meeting was called to order by Mrs. Lorin C. Collins, first vice-president of the Federation, acting in the absence of the president, Mrs. Geo. W. Goethals. The report of the credentials and business committee read by the Chairman was adopted. The roll call of delegates followed. The minutes of the previous meeting were adopted as read by the secretary, Mrs. Frank W. Miracle. The application of the Las Cascadas club for admission to membership in the Federation was granted by an unanimous vote.

Mrs. Ralph Wolf, corresponding secretary read the report of her work, and a letter from Miss Harriet Shick, of the General Federation of Women's Clubs in reply to the application for membership in that organization was followed with special attention. Miss Shick wrote, that according to the Federation constitution no application for membership could be considered unless the clubs applying had been organized for at least one year.

The treasurer, Mrs. F. R. Roberts, then read her report, after which the chair called for the report of the work of each club from the time of its organization, which was presented in writing by the various club presidents. Beginning with a paper by Mrs. W. C. Gorgas, of the Ancon club, the reports, which were followed with great interest and attention, showed that each club was doing practically the same work, although different methods were employed.

Under new business a number of important resolutions were made. Mrs. Hermine Guckel moved that a committee be appointed to see what could be done for the boys and girls of high school age for whom no educational facilities are provided. After some discussion it was decided that a committee be appointed to ascertain the number of such American children in the Zone, and that the question be presented to the proper authorities whose assistance would be asked to provide some means of study for them. A motion was also made that steps be taken to have the school hours altered, so that the primary classes would have only a morning session.

The hours suggested as being the best for work in this climate are from 8 to 12, with a short recess; the primary classes then to be dismissed for the day. The older children could thus have the entire attention of the teacher. After discussion a vote was taken that the club should form committees to investigate this question.

A motion voted favorably upon was that each club should take measures to ascertain the care taken of dumb animals in the various towns and to call the attention of the authorities to cases of abuse or wilful neglect which might be found. Another motion was that a petition be presented to the Commission asking that provision be made whereby, in cases of emergency, trained nurses could be sent to homes of employes, the request for such service to be forwarded at the discretion of the local physician, the charges to be determined by the Commission and deducted from the pay of the employe. Another motion passed was that the children of the Zone be enrolled in a junior club, or society for the beautifying of their town within a certain radius of their home. It was voted to adopt club colors and a monogram.

A vote of thanks was extended to the Cristobal club for its hospitality, and to officials of the Isthmian Canal Commission and the Panama Railroad Company for their courtesy in providing a special car for the occasion.

The Empire club extended an invitation to the Federation to hold the annual meeting in April in the Commission club house at Empire, and the invitation was accepted with thanks. After some further general discussion on club work, the morning session ended.

During the recess which followed, the delegates, officers and visitors were entertained at luncheon at the Commission club house, tables being set on the veranda and a special lunch being served.

The afternoon session began at 2 o'clock, and was entirely a social one. Addresses were made by Col. W. C. Gorgas and Archdeacon Bryan. A number of vocal selections were given by Mrs. Ulrich, of Cristobal; Miss Cooke, of Ancon, and Mrs. E. Lewis Baker, of Cristobal. Tea was subsequently served in the tea room on the lower floor, which was decorated with pink roses and vines. The tea room was in charge of Mrs. Rodman, as chairman of the social committee, assisted by Mrs. Jussen, Mrs. Pierce, Mrs. Jackson, Miss Rodman, Mrs. Brewer, Mrs. White, Mrs. Wright and Mrs. Belt.

Following is the list of the delegates to the meeting:

Ancon—Madame Le Prince, Mrs. Pelham Bates, Mrs. E. F. Quimby, Mrs. Charles Boxer.

Pedro Miguel—Mrs. F. R. Roberts, Mrs. E. Tobey, Mrs. M. I. Barnes, Mrs. L. M. Vacher.

Paraiso—Mrs. E. B. Healey, Mrs. Charles Koehler, Mrs. Heath, Mrs. J. C. Barnett.

Culebra—Mrs. James Murray, Mrs. Samuel Perry, Mrs. F. B. Byram, Mrs. E. M. Pullen.

Empire—Mrs. George C. Burnett, Mrs. E. B. Beck. Mrs. J. F. McTyier, Mrs. F. W. Miracle.

Gorgona—Mrs. R. C. Goodale, Mrs. D. E. Hayes, Mrs. L. M. Everist, Mrs. S. E. Calvit.

Gatun—Mrs. Chester Harding, Mrs. D. H. St. Clair, Mrs. E. G. Bath, Mrs. Roscoe C. Nownes.

Cristobal—Mrs. Walter G. Tubby, Mrs. Frederick Mears, Mrs. Claude C. Pierce, Mrs. Hermine Guckel.

The Las Cascadas Club held its bazaar on December 28, 1907, when all present had a very enjoyable evening. The Gorgona band furnished the music for dancing. The business meeting was held January 2, when the committees for the month were appointed as follows: Entertainment—Mrs. Decker, Mrs. Lingo, Mrs. Dorson and Mrs. Albaugh. Visiting—Mrs. Crosby, Mrs. Merry and Mrs. Williamson. The Spanish classes have begun with an enthusiastic class of about thirty members. Mrs. W. R. Sargent, of Culebra, has been elected teacher.

The Gorgona club had its quarterly election of officers at the meeting on January 2 when the following officers were elected: Mrs. R. C. Goodale, president; Mrs. Everist, vece-president; Miss Laura Faxon, secretary, and Mrs. McConaughey, treasurer.

The Paraiso club has procured through the courtesy of the Commission a room for the purpose of holding divine service and Sunday School. The women are taking steps to form a club for the children of the community.

The Ancon club held its regular business meeting January 1 at 8:30, the president presiding. The meeting was devoted to open discussion of the by-laws drawn up and presented by the by-laws committee. No definite action was taken and the discussion led by teachers appointed by Mr. O'Connor. It is believed that an organization of teachers will be effected at that meeting.

Personal.

Mrs. H. D. Reed, wife of the Executive Secretary, arrived at Cristobal on the *Advance* on January 6. Mr. and Mrs. Reed are living at the Hotel Tivoli.

Mr. John Burke, Manager of the Commissary Department, who has been ill for the past few weeks with a light case of typhoid fever, sailed for Costa Rica on December 31, and will return about January 20.

Owner of Package Wanted.

THE CANAL RECORD:

Sir: Owing to a mix-up in transit of the last mail from the States, an addressed detached wrapper from one of my newspapers was used to enclose another wrapperless package, containing two copies of *The Morning Examiner* of Ogden, Utah, labeled "Hattie Reeder," and a lady's fancy collar with cuffs to match enclosing a note: "To Sister Thompson from Hattie." The intended recipient may felicitate herself and will relieve me by claiming her own.

FELIX E. PORTER,
Disbursing Office.

Empire, Jan. 4.

Concert.

By the I. C. C. Band at Bas Obispo, C. Z., Sunday, January 12, 1908, at 2:30 p. m.:

PROGRAM:

1	March	*Chateau Gontier*	Fischlin
2	Selection	*George Washington, jr.*	Cohan
3	Serenade	*La Paloma*	Xradier
4	Schottische	*Trading Smiles*	Ramsey
	Two-step	*Honey Boy*	Von Tilzer
5	Novellette	*Sweet Jasmine*	Bendix
6	Baritone solo	*Beyond the Gates of Paradise*	King
		JAMES M. GILLIES.	
7	Waltz	*Jolly Fellows*	Vollstedt
8	Overture	*Poet and Peasant*	Suppe
9	Patrol	*The Blue and Grey*	Dalbey
10	March	*Up the Street*	Morse

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at La Boca, January 19, 1908.

RECORD OF EXCAVATION.

MONTHLY TOTALS SINCE AMERICAN OCCUPATION.

BY STEAM SHOVELS.

CULEBRA DIVISION.

Months	CUBIC YARDS, PLACE MEASUREMENT.			
	1904	1905	1906	1907
January.....		70,650	120,990	566,750
February...		75,200	168,410	639,112
March		132,840	239,178	815,270
April..........		126,749	213,177	879,527
May	27,556	75,935	196,209	690,365
June....	32,551	76,905	212,623	624,586
July	31,599	78,570	159,789	770,570
August	35,056	49,210	244,823	786,866
September.	25,220	44,085	291,452	753,468
October	19,695	52,940	327,009	834,499
November..	28,860	60,540	221,642	790,632
December...	42,935	70,630	307,689	1,025,485
Totals...	243,472	914,254	2,702,991	9,177,130

Total, 1904..	243,472 cubic yards
Total, 1905..	914,254 cubic yards
Total, 1906..	2,702,991 cubic yards
Total, 1907..	9,177,130 cubic yards
Grand total to Jan. 1, 1908	13,037,847 cubic yards

There were also removed from the Chagres Division in August, September, October, November and December, 192,769 cubic yards, all of which were from the Canal prism.

GATUN.

Locks, Dams and Spillways.

Months	CUBIC YARDS, PLACE MEASUREMENT.			
	1906		1907	
	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside of Prism
January.....			47,539	
February...			70,177	
March			100,151	
April..........			103,459	
May			70,528	
June			71,181	3,832
July			59,537	14,6 8
August			78,357	26,866
September.			87,423	36,315
October	3,055		136,7 7	40,236
November..	11,517		121,635	40,987
December...	12,056		160, 95	69,756
Totals...	26,628		1,107,559	232,620

Total to Jan. 1, 1908—1,366,807 cubic yards.

LA BOCA.

Locks, Dams and Spillways.

Months	CUBIC YARDS, PLACE MEASUREMENT.			
	1906		1907	
	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside of Canal Prism
January				
February ...				
March........			538	3,367
April				1,756
May...........				762
June...........				4,907
July............			4,725	9,047
August.. ...			6,874	8,991
September.			5,431	7,375
October			7,108	112
November..			8,190	1,335
December...			6,520	
Totals...			39,386	37,652

Total to Jan. 1, 1908—7 ,038 cubic yards.

Grand total by steam shovels to Jan. 1, 1908—14,847,312 cubic yards

BY DREDGES.

COLON.

Months	CUBIC YARDS, PLACE MEASUREMENT.					
	1905		1906		1907	
	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism
January ...				90,700		111,100
February .				105,500		110,002
March......				126,650		84,145
April				87,200		69,889
May........ }		60,700		64,875		133,847
June........ }				73,500	17,000	107,118
July..		58,050		69,000	*104,322	5,600
August.....		53,183		54,000	189,170	5,127
September		48,837		123,540	403,842	17,000
October....		48,800		111,020	409,632	22,138
November		38,000		63,260	417,297	10,2 5
December.		92,250		58,400	428,053	14, 82
Totals...		399,820		1,027,645	1,969,316	691,023

Total to Jan. 1, 1908—4,087,804 cubic yards.

* On this division in July, August, September, October, November and December there was all removed from the prism 172,851 cubic yards in the Colon Division by steam shovels.

LA BOCA.

Months	CUBIC YARDS, PLACE MEASUREMENT.					
	1905		1906		1907	
	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism	In Canal Prism	Outside of Canal Prism
January ...				95,940		9 ,710
February .				95,940		93,480
March......				116,820		92,319
April				110,700		104,855
May				112,340		122,157
June		50,676		62,697	64,352	69,223
July..........		41,533		98,400	108,338	
August.....		54,530		111,930	168,284	
September		114,308		105,780	144,625	9,350
October....		81,836		97,170	357,122	
November		71,176		92,988	365,423	
December.		71,094		90,528	349,551	
Total...		485,153		1,191,233	1,557,695	586,094

Total to Jan. 1, 1908—3,820,175 cubic yards.
Grand total by dredges to Jan 1, 1908—7,907,979 cubic yards.
Grand total by steam shovels and dredges to Jan. 1, 1908—22,755,291 cubic yards.

FRENCH AND AMERICAN RECORDS.

Highest elevation on new center line of Canal before excavation began by the French:	FEET
At Culebra..	312
At Bas Obispo..	233
Greatest depth of excavation by the French:	
On I C.C. Canal axis at Culebra	161
On I.C.C. Canal axis at Bas Obispo..	148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-feet level Canal:	
At Culebra—at same point as before..	111
At barrier on Contractor's Hill..about	140
At Bas Obispo..	45
Amount excavated under American control:	CUBIC YARDS
In Culebra Division (canal prism) to Jan. 1, 1908..	13,037,847
Total excavation at all points under American control to Jan 1, 1908.....	22,755,291
Total excavation by the French at all points and including diversion channel..about	81,548,000
Total estimated excavation required April 1, 1907 for an 85-feet level canal:	
In Canal prism..	101,050,000
On lock sites..	7,965,000
For regulating work and diversion channel.	2,150,000
Dredging in old Channel, Cristobal to Gatun, to open construction channel; and at Panama, to keep channel open to La Boca,...	3,350,000
Total.....	114,515,000

REDUCING COST OF REPAIRS.

Recommendations by a Special Committee.

Close attention is being paid to reducing in every possible manner the cost of repairs to equipment and plant. The report of the Committee recently appointed to investigate the matter of reducing the number of repairs and the cost of the same as regards steam shovels, locomotives, dump cars and other equipment used in excavation work, has been approved and put into effect. The report, which is dated October 25, contains the following recommendations:

(*a*) COST OF REPAIRS TO STEAM SHOVELS.

This question divides itself broadly into two parts, that is, reduction in the amount of repairs, and reduction in the cost of same.

The committee is of the opinion that in the operation of blasting drill holes, shovels should be moved back a safe distance, and in "dobe" blasting more care should be exercised in the size and location of the shots.

The committee respectfully invites attention to the fact that, owing to the exigencies of the situation, a number of inexperienced men were employed in May of this year, but that conditions in this respect are continually improving.

The committee believes that much of the repair work on steam shovels will always be overtime work, and that it is necessary in keeping shovels in proper condition for work, inasmuch as it is desired to lose as little time as possible in the operation of the shovels. It is not seen just now how it is possible to reduce the amount of such work, which will continue as long as the work of excavation by steam shovels continues. Moreover, the added cost of overtime work does not constitute a very large part of the repair work done at the present time.

By giving each machine a general overhauling at intervals of, say, every twelve months, it is believed that the cost of repairs will be considerably diminished. The committee believes that this should be done at such time as may be be recommended by the steam shovel inspector.

By delays to the repair crew, the cost of repairs has been increased to some extent The committee is of the opinion that increase from this source in cost of repairs will be largely reduced in view of the fact that a qualified crew bas been obtained and placed in charge of the repair car. This crew will be able to get out on the main line or through the Cut in the most convenient and proper manner.

It is stated that shovel dippers in a number of cases have been used to catch large rocks as they rolled down the bank, and the dipper sticks or booms have been strained or broken, causing, in some cases, repairs amounting to three or four hundred dollars in a single case. The committee is of the opinion that this practice should be watched and shovel men censured when it is done carelessly or unnecessarily.

The question of the reduction in the cost of repairs divides itself into two parts also, the making of field repairs and the making of shop repairs. The committee is of the opinion that the field repairs to steam shovels, so far as the Culebra Division is concerned, should be made by one or more repair gangs under the direct control of the Culebra Division Engineer, in accordance with standard methods in effect and to the satisfaction of the steam shovel inspector; and that all heavy repairs and general overhauling should be done by the Mechanical Division at their shops at Empire.

Concerning shop repairs, the committee is of the opinion that if a better class of mechanics can be secured than those now employed on the Isthmus, it is highly desirable that this be done. Whether or not this is possible remains to be seen.

(*b*) COST OF REPAIRS TO CARS AND LOCOMOTIVES.

Cases cited by the Mechanical Engineer which tend to increase the amount of repairs on cars and locomotives as follows:

(1) Blasting on cars, especially at Bas Obispo and on some of the dumps. It is believed that the greater part of this damage has been caused by blasting rock on cars at Bas Obispo to prepare the rock for the crusher.

The committee is of the opinion that this blasting should be discontinued, and the Culebra Division Engineer will give orders to this effect. As to blasting on cars where a stone of unusual size gets caught in Western dump cars, in the progress of unloading on the dump, it is usually impracticable to do anything but blast it in order to free the cars. This, while injurious to the car, will probably have to be continued to some extent as long as the work is in progress. However, your committee is of the opinion that in cases of necessity for such blasting, not more than one shot should be fired at a time to break the rock.

(2) In some cases cars are damaged by shovels picking up rocks too large to get in the dipper, which rock becomes unbalanced and falls on the car, breaking the sills.

The committee is of the opinion that the Superintendent of Construction should caution their subordinates against handling such large stones, and instructions to this effect will be issued in the Culebra Division.

(3) In other cases cars are damaged by rocks left lying on or too close to the track. This practice results in break-rigging being torn off, truss rods being bent, channel posts being broken and steps on locomotives being torn off.

The committee is of the opinion that this condition should be remedied as much as possible, and instructions in regard to this cause of injury to cars and locomotives should be given to superintendents of construction in order to avoid further damage to equipment in this manner.

(4) Damage to cars is frequently caused by the failure of the trainmen, in switching cars, to part the air hose, and as a result hose are jerked apart by the movement of the cars. This is damaging to the hose, piping, and air brake apparatus generally.

Attention is respectfully invited to the fact that the Culebra Division Engineer has issued a circular prohibiting this practice, and the committee recommends that a similar course of action be pursued by division engineers of the other divisions.

(5) Owing to the improper use of air brakes, flanges of car wheels have been cracked, wheels flattened and air brake apparatus damaged, etc., by the improper use of the emergency application of air brakes, especially in spotting cars at shovels.

The committee believes that this is an evil which can be corrected by suitable orders and supervisions, and the Superintendent of Motive Power and Machinery states that he will issue orders to his road foreman of engines to report all violations of instructions covering proper care and handling of locomotives, and will recommend to division engineers the discipline to be applied in each case.

The committee is further of the opinion that conductors and trainmen should be required to pass an examination on air, and instructions will be issued in the Culebra Division to the effect that any conductor or trainman found applying air in the emergency from the rear end of a train, unless in an endeavor to avoid collision, save life, etc., will be severely disciplined.

(6) Damage is caused to cars frequently as a result of disrespect of shop tags, In many cases trainmen do not co-operate with the Mechanical Division in sending to the shop cars which have been tagged by its car inspector.

The committee is of the opinion that this matter should be given immediate attention and recommends that superintendents of transportation issue necessary orders to their trainmen with a view to having shop tags respected in future. The Culebra Division Engineer has already issued instructions accordingly.

(c) CRANE SERVICE.

Some of the cranes at present in use are too light to answer requirements and this is especially true of the 10-ton and 20-ton Browning cranes which have been used to lift weights fully 50 per cent in excess of the raising capacity of the cranes, resulting in broken booms and consequently heavy repairs and expense.

The misuse of cranes in the past has, in the opinion of the committee been due to the fact that there was a shortage of cranes and when wrecks occurred it was absolutely necessary to use equipment on hand and available at the time. There are due to arrive shortly four 25-ton wrecking cranes, two 10-ton and two 20-ton cranes. These, with the cranes now on hand should afford enough equipment of this character to obviate the necessity of using cranes for work too heavy for their raising capacity.

(*d*) SPREADERS.

The repair bills to spreaders have been very heavy, but this has been largely due to the fact that the number of spreaders was totally inadequate, and consequently none could be spared to be turned in for a general overhauling. Only temporary repairs, therefore, were made—such as would tide the machine over for a brief period.

Five new spreaders have just been received on the Isthmus and five others are on orders. When these have been erected and placed in service the supply on hand will permit of repairs being made at the proper time and the relative cost of repairs should be considerably reduced.

OFFICIAL CIRCULARS.

Borrowing Money of Subordinates.

HEADS OF DEPARTMENTS AND DIVISIONS:

My attention has been directed to the fact that certain employes have been borrowing money from other employes over whom they exercise supervision or control.

Such action will in future be considered an abuse of position sufficient to warrant dismissal from the service.

D. D. GAILLARD,
Acting Chairman
and Chief Engineer.

Culebra, Dec. 19.

Meal Tickets.

CIRCULAR NO. 152.

When meal tickets are issued to foremen for distribution to their men they will be charged against the particular foremen, who will issue the number actually needed, and return the unused tickets. Every ticket returned should be cancelled and retained either in the main, or the district time office. The Examiner of Accounts will be directed to have an official from his office count the retained tickets at the end of the month, and check them against the number reported as ,turned in by the various foremen. After this is done the tickets will be destroyed by the proper official from the office of the Examiner of Accounts, in the presence of the chief time keeper, or the time keeper in charge of the district office, who will jointly sign a certificate as to the number of tickets destroyed in each office in a book kept in each office for that purpose The Examiner of Accounts will render monthly to the Chairman and Chief Engineer, a statement showing the number of tickets thus destroyed in each time office in each division.

(Sgd) D D. GAILLARD,
Acting Chairman,
and Chief Engineer.

Culebra, Jan. 4, 1908.

COMMISSION CLUB HOUSES.

The bowling team of the Cristobal association won the championship of the Y. M. C. A. bowling league by defeating the team of the Empire association in the final series at the Culebra club house, on January 4. The score, 950 points, made by Cristobal in this contest is the largest team score ever made on the Isthmus in a single game.

Mr. R. Foster Stone of Iowa, who arrived at Cristobal on the steamer *Advance* on January 6, will give a series of illustrated lectures, under the auspices of the Y. M. C. A., at the various Commission club houses, as follows: Cristobal, January 8 and 21; Gorgona, January 14 and 19; Empire, January 12 and 16; Culebra, January 10 and 17. The lectures to be given by Mr. Stone are on the National Parks and other interesting portions of ,the western part of the United States.

CRISTOBAL.

On Saturday, December 28, the second contest of the championship series was bowled on the Cristobal alleys between the Empire and the Cristobal teams. Empire won the first game and Cristobal the next two.

Mr. A. Bruce Minear, general secretary of the Y. M. C. A. on the Isthmus, spoke at the Sunday afternoon meeting, December 19. His subject was "The Washington Convention."

EMPIRE.

On Wednesday, January 8, an entertainment will be given at the Commission club house by the Empire Minstrels under the management of Messrs. E. P. Sine and E. A. Keeling.

CULEBRA.

An exciting game of basket-ball was played here on January 4, between the Empire and Culebra teams which Empire won by the score of 34 to 21.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Challenge—High Diving.

THE CANAL RECORD:

Please insert the following in your next issue:

A challenge—David Joseph Barry, of the U. S. Marine Corps, stationed at Camp Elliott, C Z., who dived off the old French bridge into the Chagres river on the 28th instant, challenges any man on the Isthmus for high diving for any sum of money.

Very respectfully,
T. F. JOYCE, Sgt. U. S. M. C.,
Witness.
Camp Elliott, C. Z., Dec. 30, 1907.

Mask Ball.

THE CANAL RECORD:

San Blas Tribe No. 2, Imperial Order of Red Men, gave a grand mask ball on New Year's Eve. About 100 guests were present, and enjoyed dancing the Old Year out and the New Year in. While no prizes were offered for costumes yet many were unique and beautiful. The music was excellent. The hall was attractively decorated with flags, palms, and the foliage of the tropics.

During intermission refreshments were served informally.

The following committee had charge of the arrangements: *Sachem*, Duey; *P. S.*, Lesthley and W. Sims; *Brothers*, Lipsett, Grant, Duning and McKeever.

HENRY M. MCKEEVER,
Chief of Records.
Cristobal, Jan. 2, 1908.

Alfaretta Council No. 1, Degree of Pocahontas, I. O. R. M.

THE CANAL RECORD:

To all members of the Independent Order of Red Men, their relatives and friends, greeting:

Alfaretta Council No. 1, Degree of Pocahontas,, I. O. R. M., of Culebra, extends to all a cordial invitation to attend a grand rally to be held on Monday evening, January 13, 1908, at their tepee in Fraternal Hall, Culebra. The entertainment will consist of a prize euchre, dance and refreshments. Many of the ladies residing at Culebra are members of this council and have inaugurated a policy of having a monthly entertainment, which is in the hands of a competent committee and a royal time is assured to each and every attendant.

MRS. MAYME WHEELER,
Chairman.
CULEBRA, January 5.

Gatun Fortnightly Club.

THE CANAL RECORD:

On Saturday evening, January 4, the Gatun Fortnightly Club gave the first of a series of formal dances to be held during the coming season. The large hotel dining room had received considerable attention from the ladies, and. with a generous supply of palm leaves, red and yellow bunting, Chinese lanterns, crepe paper, etc., presented a gay and festive appearance, which was the delight of all present. Nearly one hundred people heartily enjoyed the program of fourteen numbers. the Gorgona orchestra furnishing the music. Refreshments were served, a la buffet, during the intermission. F. M. D. BOTTONFIELD.
Gatun, C. Z., Jan. 6.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending December 26:

FRESH MEATS.		Price. cts.
Beef, sirloin, roast	*per lb...*	*22*
Beef, rump, roast	*do*	*18*
Beef, Porterhouse	*do*	*25*
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	*16*
Beef, rib-roast, second-cut	*do*	*14*
Beef, chuck-roast	*do*	*11*
Beef, soup	*do*	*6*
Beef, stew	*do*	*8*
Beef, corned	*do*	*10* *12*
Steaks, sirloin	*do*	*22*
Steaks, Porterhouse	*do*	*25*
Steaks, rump	*do*	*18*
Steaks, tenderloin	*do*	*20*
Steaks, round	*do*	*12½*
Veal, cutlets	*do*	*21*
Veal, short-cut chops	*do*	*20*
Veal, loin	*do*	*13*
Veal, entire forequarters	*do*	*9*
Veal, for stewing	*do*	*9*
Mutton, entire forequarters	*do*	*9*
Mutton, short-cut chops	*do*	*18*
Mutton, leg	*do*	*14*
Lamb, for stewing	*do*	*10*
Lamb, entire forequarters	*do*	*10*
Lamb, short-cut chops	*do*	*22*
Lamb, legs	*do*	*18*
Pork, cuts	*do*	*20*
MISCELLANEOUS.		
Livers, beef	*per lb...*	*9*
Sausage, pork	*do*	*16*
Sausage, Bologna	*do*	*15*
Sausage, Frankfurter	*do*	*15*
Sweet bread, veal	*each...*	*1.20*
Sweet bread, beef	*per lb...*	*25*
Tripe, pickled, Honeycomb	*do*	*12*
Oysters, ½-gallon kegs	*each...*	*70*
Oysters, 1-qt. tins, square	*do*	*45*
Oysters, 1-qt. tins, round	*do*	*55*
Pigs' tongues	*per lb...*	*12*
POULTRY AND GAME.		
Chickens, dressed (milk-fed)	*each...*	*†1.15*
Ducks, fatted	*do*	*85*
Turkeys	*per lb...*	*25*
Broilers, (chicken frys)	*each...*	*75*
Squabs	*do*	*30*
Eggs, fresh	*per dozen*	*†45*
Geese (about 10-lb)	*each...*	*2.00*
Fresh fish (3 to 6 lbs)	*per lb...*	*14*
CURED MEATS AND LARD.		
Bacon, strips	*per lb...*	*23*
Bacon, English breakfast, slic'd	*do*	*§26*
Ham, sugar-cured, sliced	*do*	*§25*
Ham, one-half (for boiling)	*do*	*§20*
Ham, Yorkshire (imported)	*do*	*25*
Hams, Westphalia	*do*	*45*
DAIRY PRODUCTS.		
Butter, prints, prime quality	*per lb...*	*38*
Cheese, cream, Phila.	*each*	*22*
Cheese, Neufchatel	*do*	*6*
Cheese, Roquefort.	*per lb...*	*45*
Cheese, Young America	*do*	*22*
Cheese, Swiss	*per lb...*	*30*
Cheese, Gouda	*do*	*30*
Cheese, Edam	*each...*	*90*
Milk	*quart*	*15*
FRUITS AND VEGETABLES.		
Apples	*per lb...*	*5½*
Apples, fancy table	*per lb...*	*8*
Bananas	*per dozen*	*5*
Cabbage	*per lb...*	*†2*
Carrots	*do*	*3½*
Cauliflower	*do*	**7*
Cranberries	*do*	*10*
Celery	*bunch*	*18*
Cucumbers	*per lb...*	*†28*
Egg Plant	*per lb...*	*10*
Grapes	*do*	*†14*
Grape Fruit	*each*	*3*
Lettuce	*per lb ..*	*14*
Limes	*per hun..*	*30*
Onions	*per lb...*	*2*
Oranges	*per dozen*	*12*
Pineapples	*each...*	*20*
Plantains	*dozen...*	*12*
Pumpkins	*per lb...*	*5*
Radishes	*do*	*6*
Sauer kraut	*do*	*3½*
Squash	*do*	*†2*
Squash, Hubbard	*each*	*5*
Sweet Potatoes, American	*per lb...*	*3½*
Turnips, yellow and white	*do*	*3*
White potatoes	*do*	*†2½*

**Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries.

NEW ARTICLES		Price. cts.
Combs, dressing, 614-80, stock No. 38,147	*each...*	*12*
Brushes, shaving, 718-80, stock No 38,148	*do*	*12*
Combs, military, No. 209, stock No. 38,149	*do*	*8*
Combs, military. No. 901, stock No 38,151	*do*	*6*
Flannel, striped, m1277, stock No. 38,152	*yard...*	*85*
Sheets, hemmed, linen, 72x90, No. h450, stock No. 38,153	*pair...*	*4.40*
Sheets, hemmed, linen, 72x90, h110, stock No. 38,171	*pair...*	*8.65*
Linen, colored, costume, stock No. 38,154	*yard...*	*35*
Towels, hemmed linen, huckaback, 24x36, stock No. 38,155	*each...*	*23*
Linen, rough brown, 40-inch, b11, stock No. 38,156	*yard...*	*20*
Linen, rough brown, 40-inch, b21, stock No 38,157	*do*	*25*
Linen, rough brown, 40-inch, b31, stock No. 38,158	*do*	*26*
Linen, rough brown, 40-inch, b41, stock No. 38,159	*do*	*30*
Linen, rough brown, 40-inch, b51, stock No. 38,161	*do*	*33*
Cambric, plain linen, 36-in., c280, stock No. 38,162	*do*	*43*
Cambric, plain linen, 36-in., c310, stock No. 38,163	*do*	*54*
Cambric, sheer linen, 36-in. sc61, stock No. 38,164	*do*	*45*
Towels, hemstitched, linen, huckaback, 34x36, stock No 38,165	*do*	*30*
Cloths, typed basin, 24x24, stock No. 38,166	*do*	*15*
Cloths, typed basin, 24x35, stock No. 38,167	*do*	*18*
Cloths, glass basin, 24x35, stock No 38,168	*do*	*18*
Cloths, kitchen basin, 27x30, stock No 38,169	*do*	*17*
Robes, hand-embroidered, Irish linen, cambric, stock No 38,172	*each...*	*6.25*
Robes, hand-embroidered, Irish linen, cambric, stock No. 38,173	*do*	*7.40*
Robes, hand-embroidered, Irish linen, cambric, stock No. 38,174	*do*	*8.55*
Robes, hand-embroidered, Irish linen, cambric, stock No. 38,175	*do*	*9.15*
Robes, hand-embroidered, Irish linen, cambric, stock No. 38,176	*do*	*10.20*
Robes, embroidered Irish linen, stock No. 38,177	*each...*	*5.45*
Robes, embroidered, Irish linen, stock No. 38,178	*do*	*6 65*
Robes, embroidered, Irish linen, stock No 38,179	*do*	*10.20*
Cloths, hemstitched, embroidered, linen, tray, 14x20, stock No. 38,181	*do*	*70*
Cloths, hemstitched, embroidered, linen, tray, 18x27, stock No. 38,182	*do*	*1.05*
Cloths, hemstitched, embroidered, linen, tray, 14x20, stock No. 38,183	*do*	*53*
Cloths, hemstitched, embroidered, linen, tray, 18x27, stock No. 38,184	*do*	*85*
Cloths, hemstitched, embroidered, linen, tea, 36x36, stock No. 38,185	*do*	*2.00*
Cloths, hemstitched, embroidered, linen, tea, 36x36, stock No. 38,136	*do*	*2.10*
Cloths, hemstitched, embroidered, linen, tea, 36x36, stock No. 38,187	*do*	*2.05*
Cloths, hemstitched, embroidered, linen, tea, 36x36, stock No. 38,188	*do*	*2.60*
Cloths, hemstitched, embroidered, linen, tea, 36x36, stock No. 38,189	*do*	*2.90*
Cloths, hemstitched, embroidered, linen, tea, 40x40, stock No. 38,191	*do*	*3.10*
Cloths, hemstitched, embroidered, linen, tea, 40x40, stock No. 38,192	*do*	*3 80*
Cloths, hemstitched, embroidered, linen, tea, 40x40, stock No. 38,193	*do*	*4.70*
Handkerchiefs, ladies', hemstitched, cotton, stock No. 38,194	*do*	*5*
Handkerchiefs, ladies', hemstitched, cotton, stock No. 38,195	*do*	*7*
Handkerchiefs, ladies', fancy, embroidered, stock No 38,196	*do*	*15*
Handkerchiefs, ladies', fancy, embroidered, stock No. 38,197	*do*	*18*
Handkerchiefs, ladies', fancy, embroidered stock No 38,198	*do*	*15*
Handkerchiefs, ladies', fancy, embroidered, stock No. 38,199	*do*	*20*
Handkerchiefs, ladies', fancy, embroidered, stock No. 38,211	*do*	*21*
Doyleys, round, damask, stock No 38,212	*do*	*10*
Doyleys, round, damask, stock No. 38,213	*do*	*12*
Doyleys, round, damask, stock No. 38,214	*do*	*17*
Doyleys, square, damask, stock No 38,215	*do*	*8*
Doyleys, square, damask, stock No. 38,216	*do*	*13*
Doyleys, square, damask, stock No. 38,217	*do*	*16*

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun
Sydney B. Williamson, Division Engineer, Corozal.
E. A. LeMay, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, Jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon
Translators: F. H. Sheibley and Charles M. Brown.
M. C Kerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj John L. Phillips, U. S A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H Purnell, Health Officer, Panama.
Dr. M E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McCottey, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Sliter, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Panama	P.R.R.	Saturday	Jan. 4
Prinz Aug. Wilhelm	H.-A.	Saturday	Jan. 4
Dunottar Castle	P.R.R.	Thursday	Jan. 9
Tagus	R.-M.	Saturday	Jan. 11
Siberia	H.-A.	Saturday	Jan. 11
Finance	P.R.R.	Tuesday	Jan. 14
Prinz Joachim	H.-A.	Saturday	Jan. 18
Colon	P.R.R.	Monday	Jan. 20
Advance	P.R.R.	Saturday	Jan. 25
Sarnia	H.-A.	Saturday	Jan. 25
Magdalena	R.M.	Saturday	Jan. 25
Panama	P.R.R.	Thursday	Jan. 30
Prinz Aug. Wilhelm	H.-A.	Saturday	Feb. 1
Allianca	P.R.R	Tuesday	Feb. 4
Siberia	H.-A.	Saturday	Feb. 8
Atrato	R.-M.	Saturday	Feb. 8
Finance	P.R.R.	Monday	Feb. 10
Colon	P.R.R.	Saturday	Feb. 15
Prinz Joachim	H.-A.	Saturday	Feb. 15
Advance	P.R.R.	Thursday	Feb 20
Sarnia	H.-A.	Saturday	Feb. 22
Trent	R.-M.	Saturday	Feb. 22
Panama	P.R.R.	Tuesday	Feb. 25
Prinz Aug. Wilhelm	H.-A.	Saturday	Feb. 29

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Advance	P.R.R.	Saturday	Jan 11
Prinz Eitel Friedrich	H.-A.	Tuesday	Jan. 14
Magdalena	R.-M.	Wednesday	Jan. 15
Panama	P.R.R.	Friday	Jan. 17
Venetia	H.-A.	Saturday	Jan. 18
Prinz Aug. Wilhelm	H.-A.	Tuesday	Jan. 21
Dunottar Castle	P.R.R.	Wednesday	Jan. 22
Finance	P.R.R.	Monday	Jan. 27
Prinz Sigismund	H.-A.	Tuesday	Jan. 28
Atrato	R.-M.	Wednesday	Jan. 29
Colon	P.R.R.	Sunday	Feb. 2
Prinz Joachim	H.-A.	Tuesday	Feb. 4
Advance	P.R.R.	Friday	Feb. 7
Prinz Eitel Friedrich	H.-A.	Tuesday	Feb. 11
Panama	P.R.R.	Wednesday	Feb 12
Trent	R.-M.	Wednesday	Feb. 12
Alianca	P.R.R.	Monday	Feb. 17
Prinz Aug Wilhelm	H.-A.	Tuesday	Feb. 18
Finance	P.R.R.	Sunday	Feb 23
Prinz Sigismund	H.-A.	Tuesday	Feb. 25
Oroya	R.-M.	Wednesday.	Feb. 26
Colon	P.R.R.	Friday	Feb. 28
Prinz Joachim	H.-A.	Tuesday	Mch. 3

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Tagus	R.M.	Tuesday	Jan. 21
Magdalena	R.M.	Tuesday	Feb. 4
Atrato	R.M.	Tuesday	Feb. 18
Trent	R.M.	Tuesday	Mch. 3
Atrato	R.-M.	Tuesday	Feb. 18

The Panama railroad steamships sail at 3 p.m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 1 p.m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The Leyland Line steamer *Mexican* will sail for New Orleans, via Kingston, Jamaica, about Jan. 14, 1908.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Jan. 8, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Alba, H. Paul
Ambershe, D.
Anderson, Chas.
Atkinson, Mrs. M.
Aristoy, D. G.
Baxter, Miss C., pkge
Bedell, A. G.
Brind, Fred
Clapp, W. H., 2
Chandler, Miss G., pkge
Costello, P. H.
Core, Ben
Cramer, Theo.
Dickerson, C. O.
Ellis, G. T.
Egan, J. F., 2 pkges
Evans, Dr. F.
Farmer, B
Funk, Walter
Gage, C. E.
George, Jas.
Girant, E. S., pkge
Heckman, Mrs.
Helliwell, R., 2
Hill, J. J.
Howard, H. O.
Holst, P. O
Holbrook, J. W.
Kenney, Chas. B., 2
Kemp, Jas.
Lester, H. J.
Loper, S.
Mason, Aaron, 2
Matthews, Dr. W. S., pkge
Makomb, R. O.
McLean, O. G.
Melgord, J.
Melching, F. M., pkge
Mills, W. J.
Nicholson, M., 2
Palaskoni, D.
Peterson, C. H., 2
Raeder, J. R.
Ray, Chas.
Raiford, A.
Richards, Miss I.,
Rowe, Miss Ann
Stacr, H. L., 2
Sasson, Geo.
Saunders, J. H.
Smith, D. W.
Strong, Miss E.
Strong, Chas.
Van Ostrand, F. W., 2
Walsh, Miss Mae
Weigle, W. E.
Whipley, A. H.
Waddell, W
Wilson, R. W.

CANAL RECORD

Volume 1. ANCON, CANAL ZONE, WEDNESDAY, JANUARY 15, 1908. No. 20.

The Canal Record

Published weekly under the authority and supervision of the ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed by the full name and address of the writer.

NOTES OF PROGRESS.

New Pacific Division.

The change in the location of the locks and dams at the Pacific end of the Canal, which was approved by the President in December last, has made necessary a rearrangement of the divisions of Canal work. The La Boca division of Lock Construction has been abolished and a new division has been created to be known as the Pacific Division, Lock and Dam Construction, with Mr. Sydney B. Williamson, as Division Engineer. Mr. Williamson will have charge of the construction of the locks and dams at Miraflores and Pedro Miguel. Mr. W. G. Comber, Division Engineer of the La Boca Division of Dredging and Excavation, will have charge of all work in the Canal prism from the Miraflores locks to the Pacific entrance of the Canal.

The site of the locks at Miraflores has been entirely cleared of timber and underbrush, and excavations at the lock site will begin about January 15, several steam shovels having been ordered there. Additional borings at closer intervals than heretofore, which have recently been made at the new lock site at Miraflores, have verified the conclusions drawn from previous borings that a bed of solid rock underlies the entire area needed for the foundation of the new locks and dams.

Gatun Steam Shovel Work.

The maximum daily output of the five steam shovels working at the Gatun lock site for the week ending January 4 was made on Friday, January 3, when 7,259 cubic yards, car measurement, were excavated. Of this amount shovel No. 107 took out 119 cubic yards only, and was then moved back. The other four shovels excavated 7,140 cubic yards, an average of 1,785 cubic yards per shovel. For the same period, steam shovels Nos. 113, 114 and 119 at the spillway excavated a total of 13,090 cubic yards, car measurement. The largest day's loading for the three shovels was on the 4th, when 3,366 cubic yards were removed. Steam shovel No. 114 made the largest output for any one day of the week, loading 1,860 cubic yards on December 30. No work was done on the 1st of January, it being a holiday.

Excavation by Days, Hours, Minutes and Seconds.

The total excavation for the month of December, 1907, was 2,200,539 cubic yards, as stated in THE CANAL RECORD of January 8, 1908.

	Cubic yards
As there were 25 working days in the month, this equals per working day	88,021.5
As the work generally is on a basis of eight working hours, this equals per working hour	11,002.7
Or, per working minute	1,834.0
Or, per working second	30.5

This means that at an average of 15 cubic yards to the car (which is about the correct figure as the flats are rated at 18 yards, and the Western dumps at 12 yards), the Commission is loading, transporting and finally disposing of amounts equal to two car loads every second during the working hours. Flat cars of the Commission are 38 feet in length over all from end of draw bar to end of opposite draw bar. The Western dump cars are 22 feet in length. This makes an average length for cars, of 30 feet. Excavation per average day during the month of December, 1907, would equal 5,868 of these cars. This would make a continuous train 33⅓ miles long, or the engine of the train being at Panama, the caboose would be at Bohio. The Commission has taken out an amount equal to this continuous train every working day in December.

Postal Money Orders.

There were issued in 1907 from the seventeen post-offices of the Canal Zone, 122,488 postal money orders, aggregating $3,633,670.84. Of this amount $2,895,729.97 was in orders drawn on the United States and elsewhere, and $737,940.87 in orders drawn on the Canal Zone. Since the money order system was established in June, 1906, there have been issued 154,594 postal money orders, aggregating in amount $4,502,930.90.

There has been a steady increase month by month since the system was established. During the seven months of 1906 there were issued 32,106 orders, aggregating in amount $869,260.06. Beginning with 1,615 orders in June, 1906, aggregating $50,066.15, the business had so increased that in December there were issued 6,785 orders, aggregating in amount $172,769.03. During the first six months of 1907 there were issued 52,339 orders, aggregating in amount $1,499,771.43. During the last six months of 1907 there were issued 70,149 orders, aggregating in amount $2,133,899.41. The largest amount ever issued in one month was that in December, when the number of orders was 13,969, aggregating in amount $408,314.39. Of this amount $311,023.92 was in orders drawn on the United States and elsewhere, and $97,290.40 in orders drawn on the Canal Zone. Of the December orders the largest number was issued in the office at Cristobal, 2,423, aggregating in amount $63,651.59. Empire was next with a total of 2,000, aggregating $63,148.04; Culebra had 1,660 orders, for $49,759.39; Gorgona had 1,365 orders for $50,971.93; and Ancon 1,286 orders for $26,959.20.

Highest December Shovel Records.

The records of the highest steam shovels in each class, in each of the four construction districts of the Culebra Division, with the number of the shovel, for the month of December, 1907 consisting of 25 working days, are as follows:

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
	RAS OBISPO DISTRICT.		
111	23,017	5,754	28,771
116	16,628	7,127	23,755
	EMPIRE DISTRICT.		
205	9,410	21,957	31,367
221	3,160	28,436	31,596
	CULEBRA DISTRICT.		
213	....	38,454	38,454
230	31,685	1,320	33,005
	PEDRO MIGUEL DISTRICT.		
202	38,361	....	38,361
211	29,955	19,151	49,106

Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with a capacity of 5 cubic yards. Shovels in the fifty class are 45-ton shovels with dipper capacity of 1¾ cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

Arrival of the Katherine Moran.

The sea-going tug *Katherine Moran*, the second of the new vessels for the Isthmian Canal Commission to make the long voyage from the States, arrived at La Boca on the afternoon of January 9. She sailed from New York October 5, in command of Captain Phillips, with a crew of sixteen men. Captain Phillips reports a pleasant and un-

NOTES OF PROGRESS.

(Continued)

eventful voyage with no serious storms. The turtle-back deck which had been put on in New York, as a precaution in case of heavy seas during storms, was taken off after the Straits of Magellan had been passed, in order to make the boat more comfortable for the trip through the tropical belt in the Pacific. She arrived at La Boca with all well on board and will be ready for service as soon as her boilers are cleaned.

The sea-going dredge *Culebra*, which arrived at La Boca December 28, will be ready for service about the middle of January. Since her arrival the reserve supply of coal which she had carried in her hoppers as ballast, has been unloaded. She has been beached on a sand bar near Naos Island in order to have her bottom scraped, examined and painted. She has been carefully inspected throughout and all parts of the vessel were found to have stood the long trip well and to be in first class condition.

Dredging at La Boca.

The maximum daily output by the three dredges of the La Boca Dredging Division for the week ending January 11, scow measurement, was as follows: January 8, dredge A-2, 7,019 cubic yards; January 9, dredge 14, 5,919 cubic yards; January 7, dipper dredge, 4,060 cubic yards. The total output of each of the three dredges for the same period was: Dredge A-2, 36,217 cubic yards; dredge 14, 33,156 cubic yards; dipper dredge, 16,660 cubic yards. The total combined output for the week was 86,033 cubic yards.

December Police Report.

The December report of the Chief of Police of the Canal Zone shows an increase in the number of arrests during the month, 460 having been made in December compared with 423 in November. The 460 arrests were for 41 different offenses, and 38 different nationalities were represented. They were divided among the different towns of the Zone as follows:

Ancon	38	Las Cascadas	34
La Boca	50	Bas Obispo	8
Corozal	3	Gorgona	52
Pedro Miguel	6	Tabernilla	17
Paraiso	22	Bohio	11
Culebra	47	Gatun	27
Empire	73	Cristobal	72
Total			460

There were 124 prisoners in the district jails on December 31, an increase of 66 for the month, there having been 58 on November 30.

The coroner held inquests in 7 cases of accidental deaths during the month Three of these deaths were caused by railroad accidents and two by drowning.

The number of convicts at the penitentiary on December 31 was 88, an increase of 6 for the month, there having been 82 on November 30. There were 3 prisoners discharged and 6 received. The value of work performed by the convicts on roads, etc., was $1,037 20.

The total effective police force on December 31 was 136 and the payroll for December amounted to $14,753.34.

The ocean-going tug *E. C. Reynolds*, which is on her way from New York to La Boca, reported her arrival at Pernambuco, Brazil, on January 11.

Two Suggestions.

THE CANAL RECORD:

In taking advantage of the Isthmian Canal Commission's invitation for suggestions pertaining to the betterment of the service, the writer hereof does so in the belief that some measure of added efficiency will be found in the adoption and enforcement of two rules for the benefit of employes in bachelor quarters.

One, is the establishment of a curfew hour not later than 10 p m. (something analogous to taps in military service), when lights in bachelor quarters should be extinguished.

Another is the absolute prohibition of the practice of bringing liquor into quarters. Whether the latter is part of the regulations at present, the writer is unaware, but if not it should be.

In advocating these measures the writer would respectfully advance these reasons—to-wit—there are many employes of the Commission whose duties are both arduous and exacting, and at the end of the day's labor they are in actual need of undisturbed rest to fit them for the duties of the morrow; when this is denied them through the action of various roisterers who periodically make their quarters an assembly of brawlers whom a respectable (?) saloon keeper would not tolerate, (the writer is aware that whomsoever this shoe pinches will be the loudest in denunciation of him,) it is evident that the service given to the Isthmian Canal Commission by all who come within the zone of their disturbing influence is not, nor can not be, as efficient as it should be.

For the benefit of dipsomaniacs who will indulge in stimulants, regardless of detriment to personal health, and the writer would not deny them their "Rights" in this respect, it might be well to establish canteens in the various towns with "Boozing Ken" attachments where their orgies could be indulged without disturbing those who have no desire to take part in them, and who have "Rights" which should be respected.

The adoption of a curfew hour as before mentioned would be no hardship to endure, and would tend to minimize distracting influences that midnight indulgences make possible.

For the purposes of this communication the writer submits these suggestions as

AN ISTHMIAN EMPLOYE.

Paraiso, C. Z., Jan. 7, 1908.

CANAL EXPENDITURES.

The following table shows expenditures for Canal work, classified monthly, since July 1, 1907. The figures give only expenditures in connection with the work which have been located. In addition, there have been some disbursements, such as purchasing material, etc., which it will not be possible to locate to a specified account until their use has been finally determined:

Mo. 1907	Civil Administration	Sanitation	Construction and Engineering	Municipal Improvements	Plant Account	Total
Prior to Jul. 1	$1,405,521.44	$4,501,634.81	$13,122,878.59	$4,051,558 04	$18,482,007.87	$41,563,600.75
July	51,183.84	149,270.94	962,477.19	146,131.93	580,562.68	1,889,626.58
Aug.	67,548.53	214,018.03	1,196,803.45	192,227.75	767,153.24	2,437,751.00
Sep.	63,239.62	253,108.77	1,194,304.85	107,840 85	1,068,300.58	2,686,794.67
Oct.	53,227.97	189,196.38	1,372,311.81	123,939.88	1,131,450.91	2,870,126.95
Total	$1,640,721.40	$5,307,228.93	$17,848,775.89	$4,621,698.45	$22,029,475.28	$51,447,899.95

PERFORMANCE OF STEAM SHOVELS.

The subjoined table shows the record of steam shovel work in the Culebra Division for the past two years. It will be noticed that the average output per shovel for the month of December, 1907, is much larger than for any previous month since work began:

Period.	Average number of steam shovels at work.	Number of working days in month.	Output per shovel cubic yards		Rainfall—Inches.		Maximum temperature in sun at Empire (degrees Fahrenheit).
			Per day.	Per month.	Empire.	Culebra.	
1906—							
January	12.83	26	363	9,430	1.28	1.19	.....
February	12.48	23	587	13,494	0.57	0.64	......
March	12.37	27	716	19,335	0.45	1.34	......
April	12.33	24	720	17,289	11.42	8.43	......
May	12.41	27	581	15,684	7.54	7.25	......
June	14.81	26	539	14,026	6.92	8.94	123
July	16.64	25	378	9,441	14.61	20.26	127
August	16.93	27	536	14,461	11.84	12.97	132
September	21.83	24	568	13,664	7.41	6.22	130
October	22.67	27	532	14,373	3.97	8.46	128
November	20.46	24	459	10,833	21.05	19.19	120
December	22.68	25	491	12,267	8.15	9.09	108
1907—							
January	31.04	26	702	18,248	0.08	0.00	104
February	39.87	23	674	15,966	0.13	0.49	108
March	43.88	25	741	18,530	0.16	0.08	105
April	44.12	26	765	19,884	0.09	0.04	110
May	31.70	26	833	21,674	6.22	7.45	118
June	38.28	25	651	16,266	13.53	14.74	118
July	43.38	26	680	17,670	9.85	9.42	118
August	39.70	27	729	19,680	11.28	12.82	120
September	38.50	24	811	19,468	10.61	10.72	123
October	37.63	27	813	21,963	15.44	15.27	123
November	41.88	24	784	18,818	10.40	6.91	123
December	42.72	25	955	23,888	1.47	2.30	124

THE SANITARIUM AT TABOGA.

Its History and Uses—Attractions of the Island.

By David A. Laing.

The Sanitarium on Taboga Island was established by the old French Canal Company in 1885 as a convalescent hospital for the French employes then working on the Isthmus. After the abandonment of active operations on the Canal, the representatives of the French company allowed residents of the Isthmus to use the Sanitarium building as a boarding place for visitors. The attention of the French officials was first called to the salubrity of the island of Taboga by the fact that residents of the Isthmus had for many years visited there and considered it a very agreeable change from the relaxing climate of the mainland. It is a well known fact that the rainfall at Taboga is only about one-half what it is on the Ancon side of the Isthmus, while conditions show that the atmosphere is at all times very much drier and the climate much more bracing.

After the transfer of the Canal works to the administration of the United States, one of the first orders given by the hospital division was for the rehabilitation and reorganization of the Sanitarium at Taboga. The work was completed and the Sanitarium re-opened in September, 1905. Since that date extensions and improvements have been made about the buildings and grounds.

The present normal capacity of the Sanitarium is seventy patients, with an emergency capacity of ninety.

The system employed is to transfer the convalescents from Ancon and Colon Hospitals, and when they so desire, and there are accommodations available, to allow their families to accompany them. At times also, employes and their families are sent there on the recommendation of an I. C. C. physician without first entering the hospital. When conditions permit, employes who so desire, are allowed to spend portions of their vacations at the Sanitarium. The same is true of honeymoons. The Sanitarium is in charge of a Superintending Physician, three nurses, and a steward, assisted by a staff of colored cooks, attendants and waiters. Patients are transferred to Taboga by the hospital launch which makes tri-weekly trips. On this launch supplies from the Commissary are also shipped. Considerable amounts of milk and fresh fruits are purchased on the island for the use of the institution.

En route to Taboga, passengers obtain a very good view of Panama city and Ancon, the Pacific entrance to the Canal at La Boca, the leper settlement at Palo Seco, and the islands of Naos, Culebra, Perico and Flamenco. These islands are now the property of the United States and on one of them, Culebra, quarantine headquarters for the Pacific side of the Isthmus will be established.

Near the island of Perico may be seen the masts of the ship *Lautaro* which was set fire to and sunk in January, 1902 by the Liberal gunboat *Padilla* during the last revolution. Gen. Alban, the Colombian military chief of the province of Panama lost his life in this action, along with two or three hundred Colombian soldiers, many of whom were buried on the island of Flamenco close by.

Taboga Island is about four miles long and two miles broad, and is ten miles from Panama city. On his arrival the visitor is impressed with the extreme clearness of the sea water, the atmosphere, and with the many different shades of green that are to be observed on the sides of the hills. The village of Taboga is ideally located on a horseshoe bay and is said to have been in existence at the same time as Old Panama. In the village there is a small, old Roman Catholic church that is a point of interest to visitors. The floor of this church is paved with tombstones and memorial stones, many of them bearing dates during the eighteenth century.

The sea bathing is very good, especially on the section of beach that forms the bar between Taboga and Morro islands. About half a mile above the village there are also fresh water bathing pools which are supplied by the stream coming down the ravine in the centre of the island.

The climb to the top of the hill behind the village is well worth the exertion involved. The path follows the stream for about a mile and then branches off through several pineapple and corn patches to the top of the hill, whence a magnificent view of the whole of Panama Bay and the mountains of the Isthmian mainland can be obtained.

Plantations of pineapples, oranges, limes, mangoes, mameis, cocoanuts, corn and coffee are tended by the natives. The pineapples of Taboga are famous for their lusciousness. Others of the natives make their living as fishermen and boatmen. Taboga spring water is well known up and down the west coast. The steamship companies running into Panama obtain water there which is used by their boats while on the trip to San Francisco or Valparaiso.

The Pacific Steam Navigation Company at one time had machine shops and storehouses on Taboga Island for the purpose of handling repairs and victualling their steamers plying up and down the coast. Their headquarters were moved to Callao and later to Valparaiso, but they still dock and repair their small local coast steamers at Taboga.

Unknown Suicide.

The body of an unknown man, in an advanced stage of decomposition, was found hanging from the limb of a tree on the Sabanas road about a mile and a half from Ancon on the morning of January 2. All indications point to suicide. The police give the following description of the body: Height, 5 feet 7 inches; complexion, dark; weight, about 160 pounds, hair, fine, straight and dark brown in color; long, thin, black mustache; face, oval; nose, small, slightly turned up; ears, extremely small; age, about 30 years.

The body was clothed in a gray worsted sack coat of good cloth, marked "Hub, Los Angeles, California," on collar; a pair of new khaki trousers, and a pair of new President suspenders; pink and white striped shirt ½-inch tuck in left sleeve; red and blue silk handkerchief around the neck; dark tan low quarter cut shoes with capped tip, size 7; an ordinary black felt hat, rather cheap, with a band around edge. In the pockets were found an ordinary open-faced nickel plated watch, with an American flag in colors on face of dial; a strip of paper which was at one time a brand mark wrapped about cigarettes, and on the inside of same was written in pencil the name "Juan Marto;" a small folding looking glass and a small comb in leather case; two good linen handkerchiefs, hemstitched edges, and wrapped in same were found thirty-one $20 gold pieces, one $5 gold piece, and ten cents in silver.

The rope by which the body was suspended was in two sections tied together—one a common, ½-inch grass rope, about 12 feet long, spliced in the center, and another, a bell cord such as is used on passenger trains, about 12 feet long, which apparently had not been previously used.

There were found near the body, copies of the New York *Times* and New York *Herald*, dated December 22, 1907, indicating that the dead man was evidently an English-reading person. From the indications, the Coroner's jury came to the conclusion that the suicide was an American.

Anyone recognizing any person answering to the description given above, or any of the articles mentioned, or the name "Juan Marto" will please communicate with the Chief of Police, Ancon, Canal Zone.

All storekeepers of the I. C. C., or P. R. R., and conductors who have lost any bell cord such as described will also please communicate with the Chief of Police, Ancon.

LEAGUE BASEBALL GAMES.

Official Schedule of the Isthmian Baseball League, Adopted January 5, 1908,

Dates	Ancon Park	Empire Park	Gorgona Park	Gatun Park
Dec. 22, 1907	Ancon vs. Culebra	Empire vs. Kang.		
Dec. 25, 1907	Ancon vs. M. P. M.	Empire vs. Culebra	Gorg. vs. Kang	
Dec. 29, 1907	Gorg. vs. Culebra	M. P. M. vs. Gatun	Kang. vs. Ancon	
Jan. 1, 1908	M. P. M. vs. Emp.	Culebra vs. Kang.	Gorgona vs. Gatun	
Jan. 5, 1908	Kang. vs. M. P. M.	Empire vs. Ancon	Gatun vs. Culebra	
Jan. 12, 1908	Ancon vs. Gorgona	Empire vs. Gatun		
Jan. 19, 1908	Kang. vs. Gatun	Culebra vs. M. P. M.	Gorgona vs. Emp.	
Jan. 26, 1908	Ancon vs. Gatun	Gorg. vs. M. P. M.	Kang. vs. Culebra	
Feb. 2, 1908		Culebra vs. Ancon	Emp. vs. M. P. M.	Gatun vs. Kang.
Feb. 9, 1908	Gorgona vs Gatun	Empire vs Culebra	M. P. M. vs. Kang.	
Feb. 16, 1908		M. P. M. vs Cul'ba	Gorgona vs. Kang.	
Feb. 22, 1908	Ancon vs. M. P. M.	Empire vs. Kang.	Gorg. vs. Culebra	
Feb. 23, 1908	Ancon vs. Kang.	Empire vs. Gorg.	Gatun vs. M. P. M.	
Mar. 1, 1908	Ancon vs. Empire	Kang. vs. Gatun	Gorg. vs. M. P. M.	
Mar. 8, 1908	M. P. M. vs. Cul'ba		Gorg. vs. Ancon	Gatun vs. Empire
Mar. 15, 1908		Empire vs. Culebra	Gatun vs. Ancon	
Mar. 22, 1908	Ancon vs. Gorg.		Gatun vs. Empire	
Mar. 29, 1908	M. P. M. vs. Emp.	Culebra vs. Gorg	Gatun vs. Kang.	
Apr. 5, 1908	Ancon vs. Culebra	Kang. vs. M. P. M.	Gorg. vs. Gatun	
Apr. 12, 1908	Gorg. vs. Ancon	Culebra vs. Kang.		Gatun vs. M. P. M.
Apr. 19, 1908	M. P. M. vs. Kang.	Ancon vs. Gatun	Gorg. vs. Empire	
Apr. 26, 1908	Ancon vs. Empire	Kang. vs. Culebra		Gatun vs. Gorgona
May 3, 1908	M. P. M. vs. Gatun	Kang. vs. Ancon	Gorg. vs. Culebra	
May 10, 1908		Emp. vs. M. P. M.	Gorg. vs. Kang.	Gatun vs. Culebra
May 17, 1908	Ancon vs. M. P. M.	Empire vs. Kang.		
May 24, 1908	M. P. M. vs. Cul.		Gorg. vs. Empire	Gatun vs Ancon
May 30, 1908	M. P. M. vs. Gorg.	Empire vs. Ancon	Gatun vs. Culebra	
May 31, 1908	Empire vs. Gatun	Kang. vs. Gorg.	Culebra vs. Ancon	
June 7, 1908	Ancon vs. Kang.	Empire vs. Culebra	Gorg. vs. M. P. M.	
June 14, 1908	Ancon vs. M. P. M.	Empire vs. Kang.	Gatun vs. Culebra	

SOCIAL LIFE OF THE ZONE.

The Teachers in the Public Schools of the Canal Zone Form an Organization.

At a call issued by Prof. David C. O'Connor, Superintendent of the Zone public schools, the teachers convened in the Ancon school house January 11, for the purpose of forming an organization to meet at regular periods for the discussion of the educational problems that confront them in their work here. After an address given by the superintendent, votes by ballot were taken which resulted in the election of Miss Mills of Ancon, president, and Miss Baily, secretary. Miss Mills then took the chair and a program committee was appointed to serve for two months, consisting of Miss Danforth, chairman; Miss Heller, and Mrs. Perkins. This committee will have in charge the questions to be taken up for discussion at the monthly meetings of the club. The chair also appointed an educational committee to meet and confer with the members of the various women's clubs for the purpose of interchanging ideas in regard to home and school work in an endeavor to bring about better understanding between the mothers and teachers. Action was taken outside the organization for the meeting of all the primary and advanced grade teachers, to give greater uniformity of purpose and discuss the use of text books.

The Paraiso Woman's Club gave a New Year's dance in the club rooms which was attended by large parties from Culebra and Pedro Miguel. Mrs. G. H. Keislake, chairman of the decorating committee and her assistants had the hall decorated with palms and tropical foliage.

The Club held its regular meeting January 9, in the club rooms. Mrs. E. B. Healey in the chair. The club has decided to take up a course in current literature. The president, Mrs. J. C. Barnett, who has been quite seriously ill at her residence, is improving rapidly.

The Ancon Club holds its regular meeting January 15. The meeting will be devoted to the business left over from last year. Preparations for the flower dance to be given February 29, are going rapidly forward. The tickets are on sale at the Hotel Tivoli or may be purchased from any member of the club. The art section of the Ancon Woman's Club has commenced work and an enthusiastic class meets twice a week for drawing and sketching.

The Pedro Miguel Woman's Club gave a Japanese tea January 8, the members of the Paraiso club being the guests of honor. The visitors and their hostesses wore kimonos and the club room was arranged to resemble a Japanese tea room with decorations of chrysanthemums and palms. Refreshments were served at small tables presided over by the members of the receiving club. Mrs. E. Tobey read a sketch entitled "Japanese New Year," and a recitation was given by Mrs. Vacher. Mrs. M. A. Heath of Paraiso won the prize in the bean contest arranged for the guests. The arrangements for the entertainment were in the hands of Mrs. F. R. Roberts, Mrs. Fraser, Mrs. Vacher, Mrs Whipple, Mrs. Henderson and Mrs. Tobey. Mrs. Barnes acted in the place of the chairman, Mrs. Waters who was unable to be present. The club has taken up its work in earnest again and the meetings on Wednesdays are well attended. Several new members have been added to the list.

At the meeting of the Gorgona club January 2, the new officers for the quarter were elected as given in the last issue of THE CANAL RECORD. The attendance was large and the voting unanimous. Mrs. H. W. Sykes was elected press secretary. Yellow and white were adopted as the club colors and were worn by the delegates at the Federation meeting January 4. A vote of thanks was tendered to the retiring officers, Mrs. Frank Morrison, president; Mrs. R. C. Goodale, vice president; Mrs. D. E. Hayes, secretary, and Mrs. S. E. Calvit, treasurer, for their willing and untiring service during their term of office. A number of civic improvements have been effected in Gorgona during the past few months due to the efforts of the woman's club.

The Las Cascadas club met January 9 in the unused room of the school house, permission having been given for the use of the room for the present owing to the noise in regular quarters. The Spanish class was well attended. This club has adopted the system of paying for the tuition from the club treasury with no extra taxation. The members attend regularly, thus making the class particularly successful and interesting. At the close of the lesson a short talk on the Federation meeting at Cristobal was given with explanations of club work and the uses of the Federation. General satisfaction at the action of the president, Mrs. Randall, in presenting the application for membership was expressed, and the discussion of club work which was taken up by the members and their visitor was followed with interest. Mrs. Lorin C. Colins, president of the Cristobal club will be the guest of honor at the next club meeting, January 16.

The men's social club of Las Cascadas gave a New Year dance in the club rooms on New Year's eve which was attended by about ninety guests. Supper was served in the mess hall at half past eleven and dancing was continued until after midnight.

Pedro Miguel Social and Recreative Club.

THE CANAL RECORD:

The semi-annual election of officers of the Pedro Miguel Social and Recreative Club was held on the evening of January 7, with the following result:

J. B. Jeffries, president (re-elected); Geo. W. A. Palmer, vice president; Gerald D. Bliss, secretary (re-elected); Geo. W. Oldfield, treasurer; Chas. A. Pendry, William Henderson and Chas. Connell, members Board of Directors.

GERALD D. BLISS,
Secretary.

Pedro Miguel, Jan. 8.

Odd Fellows.

THE CANAL RECORD:

A temporary organization has been formed with a view towards forming a permanent organization of "Odd Fellows" in the town of Culebra, and all who are interested in joining are requested to meet in Fraternal Hall, Culebra, Monday, January 20, 1908, at 7:30 p. m.

CHAS. C. CAMERON,
Secretary.

Culebra, Jan. 10.

PERSONAL.

Mrs. D. D. Gaillard, wife of Commissioner D. D. Gaillard, arrived on the Isthmus on the *Panama*, on January 10. Mrs. and Major Gaillard will occupy their new house at Culebra after January 16.

Capt. George M. Hoffman, U. S. A., was a passenger on the *Panama*, which arrived at Cristobal January 10. Capt. Hoffman will be Assistant Division Engineer of the Chagres Division and will live at Gorgona.

Dr. and Mrs. F. E. Darby of Ancon Hospital, who have been on a visit to the States, returned to the Isthmus on the *Panama*.

Mrs. L. S. Gardiner and Miss Helen R. Slifer, who have been spending a few weeks in Colon, sailed for New York on the *Advance*, January 11.

Mrs. Marie Robinson Wright, accompanied by her secretary, Miss Sara Hartman, arrived at Cristobal on the *Panama* on January 10, and will make a short visit to the Isthmus. Mrs. Wright is the author of "Picturesque Mexico." "The New Brazil," "The Republic of Chili," and "Lupi Legends," and has in preparation several other volumes relating to the histories of Bolivia, Argentina, Uruguay and Paraguay. She has made a special study of the countries of Spanish America; has travelled one thousand miles on horseback in Mexico and has crossed the South American continent three times.

The Right Reverend Edward William Osborne, D. D., Bishop of Springfield (Ill.), who is en route to Trinidad, will make a visit to the Isthmus from January 16 to 21, and will be the guest of Archdeacon Bryan at Ancon. During his stay Bishop Osborne will administer the rite of confirmation of the Protestant Episcopal church at the following places: At Gorgona on Friday, January 17, at 3 p. m.; Protestant Chapel, Ancon Hospital, Sunday, January 19, 10 a. m.; and at St. Paul's church, Panama, 7:30 p. m.; Christ Church, Colon, Monday, January 20, 7 p. m. Everyone is cordially invited to be present at these services.

Episcopal Church Services.

Beginning on Sunday, January 5, the following will be the hours for services in St. Luke's church (Protestant Chapel, Ancon Hospital): 7 a. m. Holy Communion; 8:30 a. m. Sunday school; 10 a. m. Divine Service and Sermon. These Services are free, and a cordial invitation is extended to all persons to attend them.

Concert.

By the I. C. C. Band at La Boca, C. Z., Sunday, January 19, 1908, at 2:30 p. m.:

PROGRAM:

1 March	*In Dixieland*	York
2 Medley selection	*I'm Trying so Hard to Forget You*	Harris
3 Waltz	*Forget Me Not*	Brookes
4 Intermezzo from	*Cavalleria Rusticana*	Mascagni
5 Song for cornet	*My Creole Sue*	Davis
6 Selection	*Prince of Pilsen*	Luders
7 Moreau	*Hearts and Flowers*	Tobani
8 Overture	*Poet and Peasant*	Suppe
9 Sand Dance	*Moonlight on the Suwanee*	Friedman
10 March	*General Mixup, U. S. A.*	Allen

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Gorgona, January 26, 1908.

HEALTH REPORT FOR DECEMBER.

Improvement in Health Conditions.

To the Acting Chairman, Isthmian Canal Commission, Culebra, C. Z.

Sir: I herewith forward report of the Sanitary Department for the month of December, 1907. There has been a slight improvement in most all the rates over that of November. The annual death rate for November for all employes was 20.66; that for December 18.11. For the total population the death rate for November was 28.86; that for December 28.50—almost the same.

I invite attention to the great difference in the death rate between the Canal Zone (American territory), 21.67 per thousand, and the Panama territory located in the same Zone (the towns of Panama and Colon), 36 per thousand.

The sick rate among the employes shows a slight improvement for December over November, December being 19.76 and November 20.49.

Comparing December of this year with December of 1906 a marked improvement is noticed. The annual death rate for December 1906 was 30.27 per thousand; that for December, 1907, 18.11 per thousand, an improvement of nearly 12 per thousand. Taking the whole population of the Zone, including the towns of Panama and Colon, the annual death rate for December, 1906 was 39.21 per thousand; the same rate for December 1907 was 28.50, an improvement of over 10 per thousand.

The sick rate for December, 1906 among the employes was 30 57 per thousand; for December, 1907, 19.76 per thousand, an improvement of over 10 per thousand between the two years; that is, last year where we had three men sick from our employes all during the month of December, in the same time this year, we had only two sick.

There has been a very marked decrease in malaria during the year. Considering the deaths caused by disease, among our laboring force, I find that last December with a force of 29,000 men we had 13 deaths from malaria; this December with a force of 15,000 men we had 6 deaths from malaria.

In considering the number of cases of malarial fever the ratio is about the same. Last December we admitted into our hospitals 1,617 cases of malaria; this December 801. Considering the size of the force during the two years, we had just one quarter as much malaria this December as last December.

We had no cases of yellow fever, smallpox or plague anywhere on the Isthmus during the month. It has now been two years since yellow fever has disappeared from the Isthmus.

I consider yellow fever and malaria accurate measures of the effectiveness of the sanitary work done, and I submit these figures as showing that the work of the Department during the month has produced the desired result.

Very respectfully,
[Sgd.] Wm. C. Gorgas,
Chief Sanitary Officer.

GENERAL SANITATION—CITY OF PANAMA.

There is nothing calling for special comment. In the work of drainage and filling special attention has been devoted to the section known as Pueblo Nuevo, which lies immediately in front of Tivoli. It is now almost impossible for water to collect at any point.

During the month quite a number of people failed to obey the notices from this office to abate nuisances, while others persisted in allowing the continued presence of larvae on their premises. These cases were reported to the Alcalde, asking him to force their compliance with the Health Office orders or else to impose an adequate fine.

The general health of the city is good, as is the general sanitary condition. The work of street cleaning and disposition of the garbage is fairly well conducted, although a few complaints for the non-prompt removal of garbage by the local authorities have been filed.

COLON AND CRISTOBAL.

The number of gold men reported sick by the various departments in Cristobal shows a great decrease over the preceding months. There is also a decrease in the number of sick reported by the medical inspectors in Colon.

The work of keeping the screening on the houses in good repair has increased; primarily, on account of the number of new houses turned over for service, and secondly, on account of the strong trade winds that are prevailing at this season of the year. This last cause applies especially to houses situated along the water front where the wind comes against the screening with greater force and whipsaws it at the moulding.

The total precipitation of rain for the month amounted to only 9.36 inches, and with the high winds considerable dust was raised, making it necessary to place sprinklers into service much earlier than last year.

At Mount Hope the work is progressing satisfactorily in draining the swamps and cutting vegetation. All water barrels and tanks have been removed from this section. The tanks shown in the report as having been oiled are located in the storehouses and are necessary for the present for fire purposes.

In Colon there still remain 21 tanks, which will be removed when water and sewer connections are installed in the premises upon which they are located. During the month 28 houses had plumbing installed, leaving 357 houses which have no water or sewer connections, but during the coming dry months the work will progress more rapidly than in the wet season.

It has been found necessary to bring three persons into court for breeding mosquitoes on their premises. This action was decided upon after notifying the persons a number of times.

CANAL ZONE.

During December, the general health conditions have been very satisfactory, and the sick rate comparatively low. The rainfall has been light compared with previous months and conditions have been favorable for progress in sanitary work.

At La Boca, the entire north side of Sosa Hill has been cleared of vegetation and brush as anopheles were present in that vicinity during November.

At Corozal, drains have been made on the low ground in the vicinity of the hotel.

At Culebra, the subdrainage work in the area between the American settlement and the Panama railroad line has been completed. The garbage incinerator at this station is now being used and gives satisfactory results. The main street through Newton is being macadamized and this will reduce cost of garbage collection there.

In Empire District, a sewer system is being installed in the old native village, and during the coming month house connections will be made. Before the rainy season arrives, it will be possible to dispense with all pit closets in this vicinity. The native settlements of Cerro Gordo, Golden Green, and Newton, in the Empire District are growing very rapidly and contain a large number of Canal employes.

It will be necessary to carry out sanitary improvements at these villages during the coming months. The quantity of garbage to be disposed of at Empire is increasing rapidly. Periodical inspections are being made at native hotels and restaurants, and an improvement in the sanitary conditions of such premises is noticeable. The swampy area between the Material and Supplies warehouse and Cunette has been drained and surrounded by a fence.

From Pedro Miguel to Bas Obispo there are a large number of pools and streams in twelve miles of the Canal bed that form excellent breeding ground for anopheles and we have to attend to these places continually. Also, from White House in the Las Cascadas district to Bas Obispo, the Bas Obispo river parallels the Canal line and is a good anopheles breeding ground throughout the dry season. The more stagnant these pools and streams become, the more rapidly will algae form and grow therein, and anopheles larvae is always found present where algae is plentiful. During December, the breeding places have been kept fairly well controlled in the district mentioned.

At the present time, all of the watersheds are being regularly inspected and every effort is being made to keep them free of habitations and sources of contamination. All of our camps are supplied with water piped from safe watersheds. Analyses of water from the reservoirs and from the water mains are being made at regular intervals. During December, we have collected bottled soda water from all points in the Canal Zone. This bottled water includes samples of water furnished from all firms bottling water on the Isthmus. These samples are now being analyzed at the Board of Health Laboratory.

Very little fresh milk is produced on the Zone and only a few employes use it.

We are now cremating all garbage at six districts and expect to have more furnaces in operation in the near future. All garbage that is not cremated is being buried.

MOSQUITO WORK AND MALARIA.

Compared with the months of October and November climatic conditions have been favorable to reduction of malarial fever as in the corresponding months of previous years. However, during no previous year under similar climatic conditions, has the reduction of malaria been so marked as at the present time.

It is interesting to note that as the sanitary work progresses, the type of malaria prevailing is not so severe as in previous years and also that malarial fever is producing a much smaller percentage of the total sick rate than in the corresponding months of recent years.

In the past three years, the lowest malarial sick rate has occurred toward the end of the dry season. During April, May and June, of 1907, there occurred a period of nine weeks during which our hospital malarial sick rate of employes; that is, hospital cases, averaged .73 per cent., the lowest weekly rate being .52 per cent. and the highest 1.20 per cent. The above was the lowest sick rate up to that time. For the nine weeks ending December 28, 1907, the average weekly hospital malarial sick rate among employes has been .50 per cent., as against the .73 per cent. mentioned above, the lowest weekly rate being .30 per cent., and the highest .60 per cent., as against .52 per cent. and 1.20 per cent. above-mentioned.

During the three weeks December 8 to 29, 1906, the hospital sick rates, (malarial) were 1.21 per cent., 1.22 per cent. and 1.01 per cent., and for the period December 7 to 28, 1907, the corresponding rates were .30 per cent., .41 per cent. and .44 per cent., the average rate for the period being 1.14 per cent. for 1906, and .38 per cent. for corresponding period of 1907.

In the Gorgona district, including the territory between Mamei and Matachin, malarial fever was simply rampant during 1904, 1905 and 1906, and for a long time resisted the unusual and most energetic measures employed by the Department for its extermination. As late as the month of August, 1907, the malarial rate among employes still ran as high as 3 per cent. and 3.50 per cent., weekly. In spite of this discouragement the work was kept up and now the malarial campaign and sanitary work in this district is producing satisfactory results as is shown in the following tables:

Showing total weekly sick rate in Gorgona district, *i. e.*, all cases of sickness among employes sent to the hospital each week during weeks of December 1906 and 1907.

1906

Week ending	Dec. 1	Dec. 8	Dec. 15	Dec. 22	Dec. 29
	1.83%	1 92%	2.40%	2.99%	1.39 p.c.

1907

Week ending	Nov. 30	Dec. 7	Dec. 14	Dec. 21	Dec. 28
	0.31%	0.25%	0 43%	0.53%	0.57 p c.

Table showing weekly malarial sick rate in Gorgona District, *i.e.*, all hospital cases of malaria sent to hospital each week in December of 1906 and 1907 among employes:

1906

Week ending	Dec. 1	Dec. 8	Dec. 15	Dec. 22	Dec. 29
	1.83%	1.62%	1.96%	2.68%	0.96 p.c.

1907

Week ending	Nov. 30	Dec. 7	Dec. 14	Dec. 21	Dec. 28
	0.19%	0.03%	....	0.30%	0.24 p.c.

QUARANTINE SERVICE.

No changes have taken place in the institution of quarantine during the month. Since the latter part of September however, we have not heard any further report of yellow fever in the neighborhood of Port Limon and, if this satisfactory condition remains, we will be able to lift the quarantine against that section. The report of yellow fever at Managua makes Corinto, the port of that city, more a source of danger than hitherto.

The Quarantine Station is well under way and will probably be occupied in three, or three and one-half months.

THE EMPIRE MINSTRELS.

First Performance of the Y. M. C. A. Organization.

The Empire Minstrels under the management of Messrs. Sine and Keeling played to a large and appreciative audience on Wednesday evening, January 8, which taxed to its limit the seating capacity of the club house at Empire. A considerable number of spectators were compelled to stand on the verandas surrounding the hall, where they remained throughout the evening despite lack of seats and partial obstruction of view.

The show in its promptness in starting, lack of tiresome waits between scenes, lighting effects and scenery, and general excellence of the cast, was on the level of professionalism, although composed entirely of I. C. C. employes who, with one exception, are residents of Empire.

The entertainment opened with the time-honored crescent of black faces, the chorus attired in white duck and the end-men and interlocutor in varying degrees of the conventional dress suit. The opening chorus was received with hearty applause which compelled its repetition,—a condition which prevailed throughout the evening. In the subsequent colloquy between End-men Keeling and Windsor, and Interlocutor Connelly, a number of humorous "knocks" were administered to various residents of Empire and vicinity, which the individuals concerned accepted with apparent good grace and the audience in general with enthusiasm. Interspersed with this were a number of solos by members of the company, the prevailing expression being one of surprise at the amount of talent contained in Empire.

The second part of the program contained a number of specialties, including a dancing act by Garrett and Crosby Bros. which was not on the program.

The finale showed the company as old plantation darkies. The rendering of the songs was excellent and the stage settings and lighting made a particularly effective picture.

The concensus of opinion among residents of Empire and other points who saw the show is that the boys far exceeded the most sanguine expectations of their friends, and deserve, and are receiving the thanks of the community for furnishing an excellent evening's entertainment.

The following is the program:

FIRST PART.

Opening chorus.................*The Homesick Yankee*
BY THE COMPANY
Solo and chorus...........*The Waning Honeymoon*
MR. SALE
Novelty song and chorus...*Streets of New York*
MR. POOLE
Solo.................. ....*Answer*
MR. JAMES
End song and chorus...... ....*The Lemon Tree*
MR. BROWN
Tenor solo......... ....*The Flight of Ages*
MR. WALSH
End song and chorus...*Parody on "If the Man in the Moon were a Coon, Coon, Coon"*
MR. LYON
Closing chorus... ...... *Way Down in Colon Town*
MR. WINDSOR AND COMPANY

Intermission—Ten minutes

OLIO

1—Novelty balancing...*Tennant and Hutchinson*
2—Monologue......... ....*Mr. Keeling*
3—Concertina solo......... ....*Mr. Watts*
4—Comic song and dance... ....*Mr. Dawson*
5—Hebrew monologue.......... ....*Mr. Segall*
6—Mandolin and guitar duet...*Messrs. Stolberg and Whaler*
7—In Dixie Land.......................*By the Company*

INTERLOCUTOR
Mr. L. S. Connelly

ENDS

Mr. E. A. Keeling	Mr. R. S. Windsor
Mr. A. T. Brown	Mr. G. W. Lyon

CHORUS

G. K. Rounsvell	E. M. Owry
W. R. Mead	A Sale
W. G. Manley	M. B. Pitts
L. T. Sterne	B. B. Toone
E. W. Heverly	W. H. Walsh
B. C. Poole	M. A. James

ACCOMPANISTS

Miss Henshaw, piano	Mr. Talty, violin

DIRECTORS

E. P. Sine	E. A. Keeling

DESIGNER OF STAGR AND SCENERY
Peter McAlpine

To Mrs Adolph Faure the company wishes to express its thanks and appreciation for her assistance in the direction of the music.

Gorgona Y. M. C. A. Tournaments'

The standing on January 10, of the players in the various tournaments being held at the Commission club house, Gorgona, by members of the Y. M. C. A , is as follows:

Billiards—Van Der Huerk won 9 games and lost 2; Tribolet won 9 and lost 2; Mac Conaughey won 8 and lost 3; Glover won 8 and lost 3.

Pool—Van Der Huerk won 10 games and lost 2 games; Tribolet won 8 and lost 3; Mostyn won 7 and lost 5.

Chess—Varen Kamp won 25 games and lost 3; Clements won 27 and lost 5; Lagerquist won 15 and lost 8.

All-round athletics and gymnastics—Bath, 44½ points; Charnley, 16 points; Hennen, 9; Calvit, 9.

A new bowling league has been formed, composed of employes from the various shops at Gorgona. The teams and their captains are as follows: Carpenters, captain, Collins; machinists, captain, Varen Kamp; boilermakers, captain, S. L isker; plumbers, captain, Gamble; moulders, captain, Kenney; transportation, captain, Orr; clerks, captain, Hess; miscellaneous, captain, Humphreys.

Compulsory School Attendance.

In June, 1906, the five municipalities of the Canal Zone enacted ordinances to provide for compulsory attendance at the public schools. These ordinances are still in effect. They provide that every person having legal charge or control of any child between the ages of six and fourteen, shall cause such child to attend school regularly between the second Monday in September and the last Friday in June. Any person guilty of a violation of the ordinance, after due notice has been served, will become liable, upon conviction, to a fine of $5 for the first offense, and to a fine of $10 for any subsequent offense. The following exceptions may be considered: When the child attends a private school; when the child is physically incapacitated for attendance; when the child lives at a distance of more than two miles from the nearest school and no free transportation can be granted, or when the person having legal charge of the child can offer any other explanation for failure to attend, satisfactory to the Superintendent of Schools.

By direction of the Acting Head of the Department of Civil Administration, Corpl. S. B. Schenck of the Zone Police, sailed on the *Colon*, January 6, with the suspected murderer John Hughes, and will turn him over to the representative of the State of Florida on his arrival in New York.

The steamship *Denderah* arrived at La Boca recently with 14,000 bags of coffee for North Atlantic ports.

REVENUE REPORT FOR 1907.

POSTAL DIVISION.

During the year ending December 31, 1907, there were sold in the post-offices of the Canal Zone postage stamps to the amount of $67,559.77, which is an increase over the previous year of practically 60 per cent.

The money order fees for the same period amounted to $15,126.95. The total amount of money orders issued in the Canal Zone during the year 1907 payable in the United States and all other foreign countries and the Canal Zone was $3,633,670.84.

The postal division has post-offices at seventeen points in the Canal Zone, and is now equipped with a modern post-office building at almost every point. It is expected that the new buildings at Ancon and Cristobal will be completed within a short period, which will give greater facilities for the working of exchange mail which heretofore has been hampered on account of limited space.

In November, 1907, sea postal clerks were installed on all the Panama railroad steamers running between Cristobal and New York, and registered mail is now despatched from New York to all points where there are post-offices in the Canal Zone, direct.

Within the next few months there will be installed regular railway postal service on the Panama railroad trains between Cristobal and Ancon, which service will be handled by experienced American railway mail agents who will receive mail at every station along the line, making the proper despatches on board the train. During the month of December there was handled between stations on the Panama railroad 8,530 pouches and tie sacks.

INTERNAL REVENUE.

The collection for tax on distillation of rum in the Canal Zone for the year ending December 31, 1907 shows a decrease of 46 per cent. as compared with that of the previous year. This is accounted for in part by the flood of December, 1906, which practically destroyed three or four of the large distilleries on the Zone, as well as the cane patches from which most of the rum is distilled.

DIVISION OF LANDS.

There was collected during the year 1907 for the rent of lands and buildings $11,359.80.

There were in effect on January 1, 1907, 373 leases for the rent of lands. There was issued in 1907, 725 leases and 441 leases were renewed. There were cancelled in 1907, 167 leases. Leases remaining in effect December 31, 1907, numbered 863, of which 137 were for agricultural purposes and covered 318 hectares, (a hectare being equal to about 2 2-5 acres). Seven hundred and twenty-six leases were for building lots in the different towns in the Canal Zone.

ADMINISTRATION OF ESTATES.

During the year 1907 there were settled 33 estates of American employes of the Isthmian Canal Commission and Panama Railroad Company whose estate did not exceed in value $500. During the year 1906 there were settled 26 estates. At the close of business December 31, 1907, there remained unsettled 12 estates.

CUSTOMS.

The Collector of Revenues is *ex-officio* Collector of Customs of the Canal Zone. At the ports of entry, Ancon and Cristobal, during the past year, there entered 339 vessels with a tonnage of 656,176 tons, and cleared 337 with a total tonnage of 642,966.

During the above-mentioned period there were discharged from American ships entering at the ports of Ancon and Cristobal 208 seamen, and shipped 309 seamen, deserted 61, deceased 2.

ADMINISTRATIVE DISTRICTS.

The municipalities under date of April 15, 1907 were abolished and changed into administrative districts and transferred to the Department of Revenues. For the period from April 15, 1907 to December 31, 1907 there was collected by the administrative districts $75,051.35, and in addition to this there was collected by the Collector of Revenues for licenses for the retail sale of liquors in the Canal Zone, $40,800, being tax on 34 saloons at $1,200 each per annum.

RESUME OF BUSINESS FOR YEAR.

The entire revenues collected by the Revenue Department which are applied to the Zone funds amounted to $186,644.64, as follows:

Distillation tax	$ 3,770 68
Land rents	9,653.05
Building rents	1,706.75
Liquor licenses	40,800.00
Administrative districts	75,051.35
Money order fees	15,126.95
Postal sales $67,559.77 (net Zone Revenues 60 per cent	40,535.86
Total Zone revenues	$186,644.64

At the close of business December 31, 1906, there were 44 gold and 20 silver employes, making a total of 64 employes. During the year 1906 there were received 52 employes and separated from the service 15 employes. During the year 1907 there were received 46 employes, separated from the service 27, and at the close of business December 31, 1907 there were on the rolls of the Revenue Department 81 gold and 28 silver employes.

PANAMA RAILROAD COMPANY.

Office of General Manager,
Colon, R. P., January 10, 1908.

Circular No. 83:

Effective this date, Mr. F B. Stewart is appointed Local Auditor, with headquarters at Colon, R. P., vice Mr. C. Rother, resigned.

H. J. SLIFER,
General Manager and Assistant to President.

Sojourners Lodge.

THE CANAL RECORD:

Sojourners Lodge No. 874, A. F. and A. M., will meet at its hall in Colon on Saturday, January 18, at 7:30 p. m. in Ordinary Communication. Masons in good standing are fraternally invited to be present.

CLINTON G. CARTY,
R. W. M.

Colon, Jan. 13.

Meeting of Kangaroos.

THE CANAL RECORD:

All Kangaroos located at Gatun and Cristobal will meet at the Astor House, Colon, Sunday at 2 o'clock p. m., January 19, 1908, to take action in forming a court.

ED. G. BATH,
Chairman of Committee.

Gatun, Jan. 12.

The steamship *Atheniana* sailed from New Orleans on January 6 with a cargo of 1,800,000 feet B. M. lumber for the Commission and Panama railroad.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending January 10:

		Price. CTS.
FRESH MEATS.		
Beef, sirloin, roast	*per lb...*	*25*
Beef, rump, roast	*do*	*25*
Beef, Porterhouse	*do*	*25*
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	*18*
Beef, rib-roast, second-cut	*do*	*15*
Beef, chuck-roast	*do*	*12*
Beef, soup	*do*	*6*
Beef, stew	*do*	*10*
Beef, corned	*do*	*10, 12 14*
Beef, suet	*do*	*6*
Steaks, sirloin	*do*	*25*
Steaks, Porterhouse	*do*	*25*
Steaks, rump	*do*	*25*
Steaks, tenderloin	*do*	*25*
Steaks, round	*do*	*14*
Veal, cutlets	*do*	*21*
Veal, short-cut chops	*do*	*20*
Veal, loin	*do*	*13*
Veal, entire forequarters	*do*	*9*
Veal, for stewing	*do*	*9*
Mutton, entire forequarters	*do*	*9*
Mutton, short-cut chops	*do*	*18*
Mutton, leg	*do*	*14*
Lamb, for stewing	*do*	*10*
Lamb, entire forequarters	*do*	*10*
Lamb, chops	*do*	*28*
Lamb, legs	*do*	*18*
Pork, cuts	*do*	*20*
MISCELLANEOUS.		
Livers, beef	*per lb...*	*9*
Livers, calf	*each...*	*60*
Sausage, pork	*per lb...*	*16*
Sausage, Bologna	*do*	*15*
Sausage, Frankfurter	*do*	*15*
Sweet bread, veal	*each...*	*1.20*
Sweet bread, beef	*per lb...*	*25*
Tripe, pickled, Honeycomb	*do*	*12*
Oysters, ½-gallon kegs	*each...*	*70*
Oysters, 1-qt. tins, square	*do*	*45*
Pigs' tongues	*per lb...*	*12*
POULTRY AND GAME.		
Chickens, dressed (milk-fed)	*each...*	*1.15*
Fowls	*do*	*90*
Turkeys	*per lb...*	*26½*
Broilers, (chicken frys)	*each...*	*75*
Squabs	*do*	*35*
Eggs, fresh	*per dozen*	*45*
Fresh fish (3 to 6 lbs.)	*per lb...*	*14*
CURED MEATS AND LARD.		
Bacon, strips	*per lb...*	*23*
Bacon, English breakfast, slic'd	*do*	*§26*
Ham, sugar-cured, sliced	*do*	*§25*
Ham, one-half (for boiling)	*do*	*§20*
Ham, Yorkshire (imported)	*do*	*25*
Hams, Westphalia	*do*	*45*
DAIRY PRODUCTS.		
Butter, prints, prime quality	*per lb...*	*40*
Cheese, cream, Phila.	*each*	*22*
Cheese, Neufchatel	*do*	*6*
Cheese, Roquefort.	*per lb...*	*45*
Cheese, Young America	*do*	*22*
Cheese, Swiss	*per lb...*	*30*
Cheese, Gouda	*do*	*30*
Cheese, Camembert	*each...*	*28*
Cheese, Edam	*each...*	*90*
Milk	*quart*	*15*
FRUITS AND VEGETABLES.		
Pears	*per lb...*	*10*
Pineapples	*each...*	*20*
Limes	*per hun..*	*36*
Bananas	*per dozen*	*5*
Cranberries	*per lb...*	*10*
Grape Fruit	*each*	*2½*
Apples	*per lb...*	*5½*
Apples, fancy table	*per lb...*	*8*
Beets	*per lb..*	*5*
Oranges	*per dozen*	*10*
Tomatoes	*per lb...*	*10*
Grapes	*do*	*14*
Pumpkins	*per lb...*	*5*
Lettuce	*per lb ..*	*14*
Celery	*bunch*	*18*
Cucumbers	*per lb...*	*28*
White potatoes	*do*	*2½*
Cabbage	*per lb...*	*2½*
Turnips, yellow and white	*do*	*3*
Radishes	*do*	*6*
Onions	*per lb...*	*3½*
Cauliflower	*do*	**7*
Sauer kraut	*do*	*3½*
Parsnips	*do*	*6½*
Plantains	*dozen...*	*12*
Squash, summer	*each...*	*5*
Carrots	*per lb...*	*4½*
Sweet Potatoes, American	*do*	*3*
Egg Plant	*per lb...*	*10*
Vegetable marrow	*each*	*9*

** Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries.

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.

Maj. D. D. Gaillard, U. S. A., Culebra.

Maj. Wm. L. Sibert, U. S. A., Culebra.

Civil Engineer H. H. Rousseau, U. S. N., Culebra.

Mr. Jo C. S. Blackburn, Ancon.

Col. W. C. Gorgas, U. S. A., Ancon.

Mr. Jackson Smith, Culebra.

Mr. Joseph Bucklin Bishop, Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.

Wm. Howard May, Secretary.

M. B. DePutron, Chief Clerk.

A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.

W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.

Capt George M. Hoffman, U. S. A., Assistant Division Engineer, Gorgona.

D. W. Bolich, Division Engineer, Empire.

S. J. Kennedy, Chief Clerk.

Louis K. Rourke, Assistant Division Engineer, Empire.

Wm. Gerig, Division Engineer, Gatun.

Mrs. C. L. MacPherson, Chief Clerk.

W. G. Comber, Division Engineer, La Boca

David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.

R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.

Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer.

E. P. Thompson, Chief Clerk.

Wm. Gerig, Division Engineer, Cristobal.

Caleb M. Saville, Assistant Division Engineer, Gatun.

Sydney B. Williamson, Division Engineer, Corozal.

E. A. LeMay, Chief Clerk.

W. G. Comber, Division Engineer, La Boca.

Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.

Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.

L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.

R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.

D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.

J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.

E. C. McFarland, Chief Clerk.

George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.

F. W. Doty, Chief Clerk.

Earl J. Banta, Mechanical Engineer.

A. L. Robinson, Electrical Engineer.

W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.

P. O. Wright, jr., Architect, Culebra.

J. H. Barbour, Chief Clerk.

Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.

Max Dyer, Chief Clerk, Cristobal.

W. C. Haskins, Chief Clerk, Ancon.

Wm. Krugel, Stationer and Printer, Ancon.

Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.

H. D. Reed, Executive Secretary, Ancon.

J. K. Baxter, Chief Clerk, Ancon.

Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.

E. Lewis Baker, Deputy Collector, Cristobal.

Herman A. Gudger, Deputy Collector, Ancon.

George R. Shanton, Chief of Police, Ancon.

D. E. McDonald, Chief Clerk.

C. E. Weidman, Chief, Fire Department, Cristobal

Charles F Koerner, Asst. Chief, Cristobal.

Addison Bligh, Chief Clerk

Geo. L. Cammen, Superintendent of Public Works, Ancon.

Inocencio Galindo, Legal Adviser, Ancon.

David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.

H. A. Gudger, Associate Justice, Empire.

Lorin C. Collins, Associate Justice, Cristobal.

Walter Emery, Clerk of Court, Ancon.

Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.

Walter Emery, Circuit Court Clerk, Ancon.

Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,

Elbert M. Goolsby, Circuit Court Clerk, Empire.

Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.

Nelson R. Johnson, Circuit Court Clerk, Cristobal.

Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.

Prosecuting Attorney: George M. Shontz, Ancon.

Translators: F. H. Sheibley and Charles M. Brown.

M. C. Rerdell, Senior District Judge, Cristobal

Thomas E. Brown, jr., District Judge, Cristobal.

S. E. Blackburn, District Judge, La Boca.

Edgar S. Garrison, District Judge, Empire.

R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.

Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.

Harry E. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.

Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.

Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.

J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.

Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.

Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.

Dr. John H. Purnell, Health Officer, Panama.

Dr. M. E. Connor, Health Officer, Colon.

Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.

R. E. Wood, Assistant Manager, Culebra.

S. C. Klauber, Chief Clerk.

J. M. Maguire, Superintendent, La Boca Division, Ancon.

Charles L. Parker, Superintendent, Gorgona Division, Gorgona.

Edgar Lowe, Superintendent, Cristobal Division, Cristobal.

C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.

Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.

W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.

W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.

W. F. Shipley, Sales Manager, Cristobal.

S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Dunottar Castle	*P.R.R.*	*Thursday*	*Jan. 9*
Tagus	*R.-M.*	*Saturday*	*Jan. 11*
Siberia	*H.-A.*	*Saturday*	*Jan. 11*
Finance	*P.R.R.*	*Tuesday*	*Jan. 14*
Prinz Joachim	*H.-A.*	*Saturday*	*Jan. 18*
Colon	*P.R.R.*	*Monday*	*Jan. 20*
Advance	*P.R.R.*	*Saturday*	*Jan. 25*
Sarnia	*H.-A.*	*Saturday*	*Jan. 25*
Magdalena	*R.M.*	*Saturday*	*Jan. 25*
Panama	*P.R.R.*	*Thursday*	*Jan. 30*
Prinz Aug. Wilhelm	*H.-A.*	*Saturday*	*Feb. 1*
Allianca	*P.R.R*	*Tuesday*	*Feb. 4*
Siberia	*H.-A.*	*Saturday*	*Feb. 8*
Atrato	*R-M.*	*Saturday*	*Feb. 8*
Finance	*P.R R.*	*Monday*	*Feb. 10*
Colon	*P.R.R.*	*Saturday*	*Feb. 15*
Prinz Joachim	*H.-A.*	*Saturday*	*Feb. 15*
Advance	*P.R.R.*	*Thursday*	*Feb 20*
Sarnia	*H.-A.*	*Saturday*	*Feb. 22*
Trent	*R.-M.*	*Saturday*	*Feb. 22*
Panama	*P R.R*	*Tuesday*	*Feb. 25*
Prinz Aug. Wilhelm	*H.-A.*	*Saturday*	*Feb. 29*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Jan. 14*
Magdalena	*R.-M.*	*Wednesday*	*Jan. 15*
Panama	*P.R.R.*	*Friday*	*Jan. 17*
Venetia	*H.-A.*	*Saturday*	*Jan. 18*
Prinz Aug. Wilhelm	*H.-A.*	*Tuesday*	*Jan. 21*
Dunottar Castle	*P.R.R.*	*Wednesday*	*Jan. 22*
Finance	*P.R.R.*	*Monday*	*Jan. 27*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Jan. 28*
Atrato	*R.-M.*	*Wednesday*	*Jan. 29*
Colon	*P.R.R.*	*Sunday*	*Feb. 2*
Prinz Joachim	*H.-A.*	*Tuesday*	*Feb. 4*
Advance	*P.R.R.*	*Friday*	*Feb. 7*
Prinz Eitel Friedrich	*H-A.*	*Tuesday*	*Feb. 11*
Panama	*P R.R.*	*Wednesday*	*Feb. 12*
Trent	*R..M.*	*Wednesday*	*Feb. 12*
Alianca	*P.R.R.*	*Monday*	*Feb. 17*
Prinz Aug. Wilhelm	*H-A.*	*Tuesday*	*Feb. 18*
Finance	*P R R.*	*Sunday*	*Feb. 23*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Feb. 25*
Oroya	*R-M.*	*Wednesday*	*Feb. 26*
Colon	*P.R.R.*	*Friday*	*Feb. 28*
Prinz Joachim	*H.-A.*	*Tuesday*	*Mch. 3*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Tagus	*R.M.*	*Tuesday*	*Jan. 21*
Magdalena	*R.M.*	*Tuesday*	*Feb. 4*
Atrato	*R.M.*	*Tuesday*	*Feb. 18*
Trent	*R.M..*	*Tuesday*	*Mch. 3*
Atrato	*R.-M.*	*Tuesday*	*Feb. 18*

The Panama railroad steamships sail at 3 p.m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 1 p.m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Floridian*, about Feb. 10, and *Jamaican*, about Feb. 22.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Jan. 15, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Anderson, Jas. B.
Anderson, W.
Adams, Miss Mescelina 3
Bork, F. A.
Brennman, Miss H., 2
Brown, Geo
Boylan, H. H.
Bodle, Robt.
Byran, C.
Crowley, Miss Geo.
Cuff, Will
Drake, Chas.
Devlin, J.
Duncan, C. C.
Flynn, T J.
Gustarsen, G.
Gaertner, O W
Gwartney, D. C.
Hart, Miss J.
Hall, Mrs. J. H.
Hawks, Jim
Hedmark, C.
Jackson, N. D.
Jackson, B. Y.
Krause, A.
Kiny, P.
Kenny, C. F,
Kenedy, Robt,
Lapchick, A.
Layke, Ed.
Leonard, Miss V.
Littleton, A.
Logan, A. C.
Morgan, Mrs. J.
Nolan, J. A.
Niere, L. L.
Parkam, Edw. T.
Reeves, J. H.
Rogow, Mr., 2
Stevens, Mrs. H. S.
Steinrauf, A.
Sweet, L.
Thompson, Miss M. B.
Watson, Wm.

PACKAGES.

Curtis, M S.
Curtis, C.
Gage, Miss G.
Girdner, E. A.
Hubburt, T C.
Kennedy, M.
Owens, C. T.
Smith, T. W.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, JANUARY 22, 1908. No. 21.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employees of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed by the full name and address of the writer.

NOTES OF PROGRESS.

Width of Locks to be 110 Feet.

A cable despatch from Lieut.-Col. Goethals was received on Monday, the 20th, by the Isthmian Canal Commission, saying that the President has given his approval to a plan making the dimensions of the locks of the Canal 1,000 feet long by 110 feet wide.

Chairman's Monthly Report.

The report of the Acting Chairman of the Isthmian Canal Commission for December is published in full in other columns of this issue of THE CANAL RECORD. It gives, as usual, specific information as to the progress of Canal construction in all divisions of the work. It shows that the total excavation by steam shovels in the Culebra Division during December was approximately 3½ times that for the corresponding month in 1906, and that the average output per shovel was about 95 per cent. greater, being 23.888 cubic yards per shovel against 12,267 in December, 1906. The proportion of rock to earth was slightly greater in December, 1906 than in 1907. The rainfall in December, 1907 was less than one-fourth of what it was in the same month in 1906.

There was a continued decrease in the number of employes during the month, the report for the last day in December showing 1,600 fewer men on the work than on the corresponding day of the preceding month. In the force of European laborers the decrease was 250 and among the silver artisans 1,150. Notwithstanding this reduction it was found necessary to import some common labor, as the colored artisans refuse to accept pick and shovel work, and those laid off either remain idle or leave the country. A shipment of Barbadian laborers was made during the month, being the first for some time. The outward movement of laborers was so large that for the first time during the year 'the quarantine reports showed an excess of departures over arrivals. The number of separations was the largest in eighteen months, amounting to nearly 250 in the gold force. The larger part of the reduction in the force occurred in the Mechanical Division and in the Division of Building Construction. Only 100 new men were recruited in the United States.

A number of new quarters were authorized at Ancon, and authority was given to remodel 14 old French houses into family quarters. Twenty-three families will be cared for in these houses at an average cost of $473 per family. The lowest cost per family in newly constructed houses is $1,891.50. During the month there were 569 unfilled applications for married quarters on file, a slight increase over the preceding month. Ninety-six new applications were filled during the month.

Receipts in subsistence operations were smaller than during the preceding month. The increased cost of meat and the additional expenditure of $2,000 on Christmas dinners for all classes of employes caused a deficit. More liberal meals and rations were supplied during the month as the result of a reduction in the cost of Commissary supplies. A scarcity of meat made necessary the purchase of nearly 100,000 pounds in the local markets at a cost of $10,750, which represented an increased outlay of $4,500 over and above what American beef would have cost.

Correction.

In an article, entitled "Excavation by Days, Hours, Minutes and Seconds" published on this page in THE CANAL RECORD of last week, an error was made in the calculation as to the amounts removed per working minute and second, due to the misplacing of a decimal point. The figures should have been as follows:

	Cu. yds.
As there were 25 working days in the month this equals per working day..	88,021.5
As the work generally is on a basis of eight working hours, this equals per hour..	11,002 7
Or per working minute........................	183.4
Or per working second........................	3 0

That is to say, instead of the removal of material being at the rate of two car-loads each working second, as stated in last week's article, the correct amount is one car-load every five seconds. The other calculations were accurate.

Changed Work at La Boca.

Under the new plans for the Pacific end of the Canal the amount of dredging at La Boca will be increased from about 12,000,000 cubic yards to about 30,000,000. Of this amount 1,500,000 cubic yards will be rock, which is practically the amount estimated under the former plan.

In the new work the dredged channel will begin at the—45-foot contour in Panama

(*continued on next page*)

EXECUTIVE ORDER.

Powers of the Isthmian Canal Commission and Its Chairman Newly Defined.

The Executive Order of November 17, 1906, is hereby modified as follows:

The Commission shall hold sessions upon the Isthmus at the call of the Chairman Four members shall constitute a quorum and the action of such majority shall be the action of the Commission.

The Commission, under the supervision of the Secretary of War and subject to the approval of the President, is charged with the general duty of the adoption of plans for the construction and maintenance of the canal; with the employment and the fixing of the compensation of engineers or other persons necessary for the proper and expeditious prosecution of said work; with the making of all contracts for the construction of the canal or any of its needful accessories; with the duty of making to the President annually, or at such other periods as may be required either by law or the order of the President, full and complete reports of all their actings and doings and of all moneys received and expended in the construction of said work and in the performance of their duties in connection therewith; and with the duty of advising and assisting the Chairman in the execution of the work of canal construction, with the government and sanitation of the Canal Zone and with all matters of sanitation in the cities of Panama and Colon and the harbors thereof, and with the purchase and delivery of supplies, machinery and necessary plant

For the proper prosecution of the work, the organization shall be divided by the Chairman, with the approval of the Secretary of War or the President, into such Departments as seem advisable.

Among such Departments shall be a Department of Construction and Engineering, which may be subdivided into Divisions in the discretion of the Chairman, who will also be the Chief Engineer.

A Department of Civil Administration, charged with the duty of administering the civil government within the Canal Zone.

A Department of Law, charged with the general supervision of the legal matters pertaining to the Commission, whether in the United States or on the Isthmus of Panama, including the acquisition of right of way and the adjustment of land damages.

A Department of Sanitation, charged with the duty of preserving the sanitation and health conditions upon the Isthmus.

A Purchasing Department, charged with the purchase of all supplies, machinery and necessary plant.

A Department of Disbursements, charged with the preparation of vouchers and the disbursement of funds for the Commission, and with the keeping of the general books of the Commission, upon the Isthmus.

A Department of Examination of Accounts, charged with the duty of examining into and checking the accounts of the persons charged with the custody and disposition of the property and funds of the Commission.

A Department charged with the duty of employing the necessary common labor for the Commission; with the keeping of the personal records of employes; with the care of quarters; and with the operation of Commission hotels and mess-houses.

Each of the foregoing Departments shall discharge such further duties as may be assigned to it from time to time by the Chairman; and the Chairman, with the approval of the Secretary of War or the President, may transfer from time to time specific duties from one Department to another.

The Heads of the several Departments shall be appointed by and report to the Chairman, and their salaries, except as otherwise provided, shall be fixed by him, subject to the disapproval of the Commission.

Officers and employes in the several Departments shall be appointed and their salaries primarily fixed by the head of the department in which they are engaged, after consultation with the Chairman of the Commission.

Contracts for the purchase of supplies, involving an estimated expenditure exceeding $10,000.00, shall be made only after due public advertisement in newspapers of general circulation, and shall be awarded to the lowest responsible bidder, except in case of emergency, when, with the approval of the Secretary of War, advertising may be dispensed with.

In the making of contracts for supplies or construction involving an estimated expenditure of more than $1,000.00 and less than $10,000.00, competitive bids shall be secured by invitation or advertisement whenever practicable.

The Head of each Department shall make a report upon the work and operation of his Department to the Chairman of the Commission as often as may be required.

The Chairman of the Commission shall make a report to the Secretary of War setting forth the results accomplished by each Department of the work at least annually, and as often as he may deem advisable or the Secretary may require.

The Secretary of War shall make to the President a report at least annually and as often as he may deem advisable or the President may require.

All members of the Commission shall reside upon the Isthmus, except when on leave of absence, which will be granted to members of the Commission by the Chairman and to the Chairman by the Secretary of War.

In case of absence from the Isthmus, the Chairman will designate a member of the Commission to act in his stead.

All Executive orders relating to the Panama Canal excepting so far as they may be inconsistent with the present Order, remain in force.

Effective this date, January 6, 1908.

THEODORE ROOSEVELT.

(No. 725)

WAR DEPARTMENT.
Washington, Jan. 5, 1908.

MY DEAR MR. PRESIDENT: I enclose herewith a form of Executive Order for your signature, defining the duties of the Isthmian Canal Commission, the duties of the Chairman of the Commission, and the duties of the Secretary of War in relation to Canal matters. This order makes substantially no change in the authority of the Commission, the Chairman and Secretary of War as now exercised, except perhaps in respect to a few duties of a detailed executive character which are transferred from the Commission to the Chairman, leaving the Commission still in general charge of the construction of the Canal, as provided by law. Canal matters have been conducted under previous Executive Orders with informal amendments from time to time which it is difficult for anyone not very familiar with the history of Canal matters either to find or understand. For that reason, it seems wise now to cover the matter by a new order which is not an amendment or a change except as to the unimportant details referred to, but merely a comprehensive revision of existing provisions.

Very sincerely yours,

WM. H. TAFT.

THE PRESIDENT.
Enclosure.

Family Quarters.

Owing to the large number of applications for family quarters on file and the great expense involved in the construction of such quarters, as well as the insufficiency of available funds, it was determined at the 137th meeting of the Isthmian Canal Commission, held December 7, 1907, that the general conditions of employment should be changed with the view of relieving the Commission of obligation to furnish family quarters to employes engaged for service after January 1, 1908, as follows:

> Where practicable and in the best interests of of the service, an employe will be provided with such bachelor quarters on the Isthmus as may be available from time to time. No agent of the Isthmian Canal Commission is authorized or empowered to promise family quarters to employes, and notice is particularly called to the fact that the supplying of family quarters is not a condition of employment.
>
> When the exigencies of the steamship service permit, members of the immediate family of an employe who has quarters, will be granted, upon request, the Government rate of the steamers of the Panama Railroad Company operating between the United States and Cristobal No charge will be made for children under six years of age, and half-rates will be charged for children between the ages of six and twelve years. The reduced rate may be granted to the family of an employe at the discretion of the Chairman, but the granting of the rate will not carry with it an obligation to furnish quarters.

The new conditions became effective January 1, 1908, and will apply to all employes appointed on and after that date.

Empire Minstrels in Panama.

The Ancon Amusement Association gave their initial entertainment at the Metropole Theatre in Panama on Monday evening, January 20, when the attraction was the Empire Minstrels, who repeated, with slight changes and additions, the program which they presented at Empire on January 8, and which was published in THE CANAL RECORD of last week The theatre was filled to its capacity by an audience which exhibited continuous and hearty enjoyment of the performance.

The steamship *Gretvale* sailed from Mobile, Ala., on January 17, with 100, all metal dump cars for the Isthmian Canal Commission, and should arrive at Colon about January 27.

NOTES OF PROGRESS.

(Continued)

Bay, about a mile and a half nearly due west of the outermost rock of the island group lying immediately off Panama, and known as Naos, Perico, etc., thence in a long tangent to a point opposite the upper end of the Panama railroad wharf at La Boca. A slight curve is made at this point, and the next tangent extends to a point some distance above Corozal; another slight curve is made there, and another tangent of about 1,500 feet extends into the Miraflores locks.

The plan authorized to do this work is as follows:

Dredge A-2, French ladder Dredge A-3, French ladder Dredge No. 14, French ladder	French equipment rebuilt at La Boca loading into scows and carrying to sea.
Suction dredge *Culebra*	Sea-going American dredge, taking dredged material to sea and dumping.
20-inch hydraulic pipe line dredge (not named)	Pumping dredged material on shore.
5-yard dipper dredge	Will be used principally for rock.

These dredges when all are at work, should have a capacity of 800,000 cubic yards of material a month, and should complete the channel, exclusive of rock, in about four years.

The trestle work at La Boca which was erected for the purpose of carrying out the former plans, will be used for dumps for excavated material from the Culebra Division. It will probably constitute the cheapest dump that could be selected for this end of the line and is of practically unlimited extent. The trestle connecting Sosa and Corozal hills, as already noted in THE CANAL RECORD, will be utilized as construction tracks in building the locks at Miraflores.

New Fire Alarm Systems.

A system of fire alarm boxes is being installed at Ancon, Culebra, Empire and Gorgona. The system at Ancon will consist of ten main alarm boxes, distributed at convenient points, and numerous auxiliary boxes, nine of which will be in the Hotel Tivoli, three on each floor. The Culebra system will have ten main boxes, with the auxiliary boxes in the principal buildings. Empire will have eight main boxes with auxiliaries, and Gorgona six main boxes and auxiliaries. The work is going forward, one town at a time, and will be finished about April 1.

Five new hose wagons and thirteen horses will shortly be added to the equipment of the Zone Fire Department. The horses are already on the Isthmus and the hose wagons should be here about the middle of February.

Dredging at La Boca.

The maximum daily output by the three dredges of the La Boca Dredging Division for the week ending January 18, scow measurement, was as follows: January 17, dredge A-2, 7,525 cubic yards; January 16, dredge 14, 7,045 cubic yards; January 16, dipper dredge, 3,920 cubic yards. The total output of each of the three dredges for the same period was: Dredge A-2, 39,357 cubic yards; dredge 14, 39,772 cubic yards; dipper dredge, 12,040 cubic yards. The total combined output for the week was 91,169 cubic yards.

SOCIAL LIFE OF THE ZONE.

Effects of the Federation Meeting in the Women's Clubs.

The wisdom of holding the meetings of the Canal Zone Federation of Women's Clubs quarterly has been demonstrated in the fresh impetus given to the work of the organizations since the meeting at Cristobal, January 4. Especially has this been observed in connection with the departmental and committee work. There is a general desire to perfect the organization in order to enable the machinery to run more smoothly.

The Gorgona club held its meeting January 9 with the president, Mrs. R. C. Goodale in the chair. The club work has been divided into six departments to which the following chairmen were appointed: Home, Mrs. Sweet; philanthropy, Mrs. Morrison; art, Mrs. Sykes; literature, Mrs. Aubrey; music, Mrs. Wolf; village improvement, Mrs. Henkle. An invitation extended to Madame LePrince of Ancon to address the club on art, on January 23, has been accepted. The club has invited members of other clubs and others interested to attend.

The Ancon club held its regular meeting January 15, the president, Mrs. W. C. Gorgas, presiding. The recording secretary, Mrs. T. C. Lyster, having resigned, the club elected Mrs. E. F. Quimby to that office, and Mrs. C. C. McCulloch, corresponding secretary. The report of the chairman of the art section showed favorable progress. The meeting which was devoted to business was adjourned at four o'clock when tea was served. Mrs. Bennett and Mrs. Jewett acted as ushers. The next meeting of the club will be held February 5 at 8:30 a. m.

The Culebra club had its social meeting January 16, Mrs. William Brown of Cristobal being the guest of honor. There was a short business meeting, after which Mrs. Brown gave a short address on the work in the Jacob Riis settlement in New York. The club is arranging for a dance to be given on St. Valentine's Day. The bowling class is meeting regularly with about eight members.

The Las Cascadas club had Mrs. Lorin C. Collins, president of the Cristobal Woman's club, as guest of honor at its meeting January 16. There was a good attendance. Following the Spanish class, Mrs. Collins gave a short talk at the request of the president, dealing with club work. This was followed by a general discussion in which all the members took active part. Tea was served by the entertainment committee, after which the meeting was adjourned and the the members of the club proceeded to the club room in the Commission hotel to inspect the new piano which had just arrived and been put in place. The club is planning for a number of social entertainments to be given in the near future.

The piano committee at Gatun composed of Mrs. I L. Elliott, Mrs. F. Rivers and Mrs. C. E. Robinson, wish to thank all those who so kindly contributed towards the purchase of the new church piano.

The regular meeting of the Gatun Women's club was held January 17, with the president, Mrs. Chester Harding in the chair. The secretary not being present, Mrs. R. C. Nownes acted in that capacity. The educational department has started a library for the school children consisting of 28 volumes and other books will be added in a short time. A paper on current events was read by Mrs. McCulloch. Mrs. Nownes was appointed chairman of the entertainment committee for the next regular meeting.

Tea Rooms for the Zone?

There are no tea rooms on the Isthmus of Panama says the New York *Sun* of January 5, and it proceeds to exploit the subject as follows: Think of it! In the seventeen main camps or settlements which border the railroad between Colon and Panama there are 900 married women. In addition to these there are the wives of officers of the Commission and of their assistants, and some single women employed by the Government.

Miss Gertrude Beeks, who recently returned from a trip to Panama taken at the request of the United States Government, was asked: "Suppose a woman with a few hundred dollars should go to the Canal Zone and set up a tea room, would she be likely to make money?" She answered with animation:

"Why, that's a splendid idea. There is not a single tea room on the Isthmus. It would be better, though, to set up seventeen tea rooms, for every camp would want one.

"Women at the camps would be sure to welcome tea rooms They would add to their contentment, and whatever helps to make a wife happy and contented indirectly helps her husband to be contented. As every one knows, one of the biggest problems the Commission has to meet is how to keep its force of employes contented.

"Until women's clubs were started in the Zone, except for an occasional dance at one of the men's clubs under the management of the Y. M. C. A., there was absolutely nothing for a woman to do outside of her own home. With the starting of the clubs the social outlook brightened, but there is need for many more chances of diversion. Now there is a chain of women's clubs along the Isthmus under the general direction of Miss Boswell, who went there to organize them. Early in October she called a meeting of women at the Hotel Pedro Miguel. The women turned out in force and after listening to Miss Boswell decided that women's clubs were a need Then and there a club was formed at Pedro Miguel, and in quick succession others were started at Ancon, Paraiso, Empire, Gorgona, Gatun, Cristobal and Culebra. Finally Miss Boswell called a meeting of delegates from the eight clubs in the President's suite at the Hotel Tivoli, and the chain of Zone clubs was organized under the specific title of the Zone Federation of Women's Clubs, for affiliation with the General Federation of Women's Clubs.

"A weekly meeting of each club is now a feature of the Zone's social programme for women. The club meetings are held in a room at a hotel or in a private house. The home quarters of most of the members though, are not adapted for large gatherings."

"Would it be possible to hire suitable quarters for a tea room at small expense?" Miss Beeks was asked.

"Yes. Col. Goethals is very liberal and very willing to aid any scheme for bettering social conditions. In most of the camps there is a small store, a hall or a large room which could be had at a moderate rent."

"And would there be a market, do you think, for muffins, cakes, pastries and the other things sold in the New York tea rooms?"

"Most decidedly, for in my opinion there is nothing decent to eat on the Isthmus. A woman who understands the art of cake and pastry making, who could make good bread and biscuit and tea, would be such a novelty in the Zone that her shop would probably be a go from the start. And if for no other reason, women would flock to it simply because it meant something to do and afford them a meeting place."

PERSONAL.

Lieut.-Col. Geo. W. Goethals expects to return to the Isthmus on the *Colon*, which leaves New York on February 15. Commissioner Blackburn is likely to return before that date, but no definite time has been fixed by him.

A Washington dispatch to the New York *Sun*, dated January 4, says: "Lieut.-Col. Geo. W. Goethals, Chairman and Chief Engineer of the Isthmian Canal Commission, will leave Washington to-morrow afternoon for Clinton, Mass., where he will inspect the Massachusetts dam there. Later he will inspect a dam in the Charles river near Boston, which has horizontal rolling lock gates, the type of gate to be constructed on the Panama Canal."

Messrs. Jose O. Lorente and Luis C. Guerrero, who came to the Isthmus as a committee of the Gallego Society of Havana to investigate the condition of the Spanish laborers who are working on the Canal, returned to Havana January 16. They were given full opportunity to inspect the work of the Canal and especially the treatment accorded to the Spanish laborers. Previous to their departure they expressed themselves as eminently satisfied with the condition of the Spanish laborers here, saying that nothing better could be desired.

Mrs. Herbert G. Squiers, wife of the American Minister, returned to the Isthmus on the *Finance*, which arrived at Cristobal, January 21, accompanied by Arnold Shanklin, American Consul-General at Panama.

"Two Suggestions."

Several letters have been received commenting upon the letter of an employe published last week under the title "Two Suggestions." Lack of space prevents the publications of these in this issue of THE CANAL RECORD, but they will appear next week.

Concert.

By the I. C. C. Band at Gorgona, C. Z., Sunday, January 26, 1908, at 2:15 p. m.:

PROGRAM:

1	March	*With Sword and Lance*	Starke
2	Selection	*I'm Trying so Hard to Forget You*	Harris
3	Serenade	*La Paloma*	Xradier
4	(a Two step	*Paddy Whack*	Lampe
	(b Intermezzo	*Iola*	Johnson
5	Cornet solo	*Romanza*	Grecio

DIMITRIOS LEORES.

6	Selection	*Mikado*	Sullivan
7	Waltz	*Jolly Fellows*	Vollstedt
8	Overture	*Bohemian Girl*	Balfe
9	Morceau	*Narcissus*	Nevins
10	March	*Our Director*	Bigelow

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Paraiso, February 2

CANAL WORK FOR DECEMBER.

Monthly Report of the Chairman to the Secretary of War.

January 14, 1908.

The Honorable,
The Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of operations on the Isthmus for the month of December, 1907:

Department of Construction and Engineering.

CULEBRA DIVISION.

The total amount of material excavated in the Culebra Division during the month was 1,023,485 cubic yards, as against 790,630 cubic yards in the month of November. Of this amount, 1,020,471 cubic yards were removed by steam shovels, and 5,014 cubic yards were loaded by hand at Bas Obispo, for use with the rock crusher. The amount of material removed from the Canal prism was 1,006,026 cubic yards, and from the Camacho and Obispo diversions, 19,459 cubic yards.

For comparison with the work done during the corresponding month of the previous year, the following table has been prepared:

Period.	Total amt. of material excavated by steam shovels.	Classification of material.		Av. No. of steam shovels work'g during month.	No. of working days in month	Av. amt. excav'n per shov'l per day	Av. amt. excavat'n per shov'l per month.
		Rock.	Earth.				
Dec. 1906	*cu. yds.* 278,197	*p. c.* 65	*p c.* 35	22.68	25	*c. y.* 491	*cu. yds* 12,267
Dec. 1907	1,020,471	60	40	42 72	25	955	23,888

The rainfall during the month of December, 1906, was 8.62 inches, and in December, 1907, 1.88 inches.

It will be noted from this table that the total excavation by steam shovels in the Culebra Division during the month of December, 1907, was approximately three and one-half times that for the corresponding month in 1906, and that the average output per shovel was about 95 per cent. greater.

The rainfall during the month of December, 1907, was less than one-fourth the amount for the same month in 1906.

The proportion of rock to earth was slightly greater in December, 1906, than in December, 1907.

The amount of drilling performed during the month was as follows:

By steam and air drills..	91,972 lin. ft.
By well or churn drills...	37,118 lin. ft.
By hand drills..................	16,145 lin. ft.
Total........................	145,235 lin. ft., or 27.5 miles

For blasting operations during the month 199 tons of explosives were used.

The rock channelers at Bas Obispo channeled 3,528 square feet during the month.

The output of the rock crusher at the same place was 18,151 cubic yards.

During the month 15.4 miles of new track were laid, and 9.6 miles of old track were removed.

The daily average number of laborers at work was 6,443, a decrease of 500 as compared with the preceding month.

CHAGRES DIVISION.

Work in this division was continued throughout the month with the four shovels which were working in November, and the addition of three others, the total amount of material excavated from the prism being 98,652 cubic yards, as against 44,044 cubic yards for the month of November. Of this amount, 67,475 cubic yards of rock and earth were taken from the San Pablo side, and 30,232 cubic yards of rock and earth from the Caimeto side. The daily average excavation per shovel was 764 cubic yards.

At San Pablo and Caimeto the track work and blasting have been kept well ahead of the excavation, and the dumps have been able to take care of all material.

The old French shop at Caimeto has been overhauled.

The drilling during the month on this division was as follows:

By steam drills	330 lin. ft.
By well drills...........	5,708 lin. ft.
By hand drills..........	3,121 lin. ft.
Total.................	9,159 lin. ft., or 1.73 miles

During the month 3.44 miles of new track were laid; 3.70 miles were graded; 2.13 miles were raised, and 2.62 miles were surfaced.

A river dump was started adjacent to the Chagres in the north end of the point where all excavation is at present being handled.

The change of center line which has been adopted in the vicinity of Buena Vista was partially run out on the ground and cross-sectioned.

A projected location of the Canal axis from the Frijoles point of intersection to Barbacoas was partly run out, and a second center line party has run out a projected line from Caimeto to Obispo.

A topographical map of the San Pablo and Caimeto work was completed, and cross-sectioning has been continued to Mile 27.

The office work included the estimating and preparation of maps of the proposed changes of Canal axis, and a plan for the proposed suspension bridge over the Chagres at San Pablo.

A gang cleared 11.5 acres within the prism, and 33.3 acres outside of the prism.

The rainfall for the month at San Pablo was 3.65 inches.

The average daily force employed was 1,200.

COLON DIVISION.

Work in this division was prosecuted during the month by three dredges, two of which worked entirely in the Canal prism, and the third in the old French canal above the dry dock. The material removed by these dredges was as follows:

Dredges.	Material.	Amount. (Place measurement.)
1 old French ladder dredge	Soft	110,373 cu. yds
1 sea-going suction dredge *Ancon*...........................	Soft	317,680 cu. yds
1 five-yard dipper dredge *Chagres*....	Soft	14,782 cu. yds
Total........................		442,835 cu. yds

The 16-inch suction dredge continued work at Porto Bello throughout the month. The dipper dredge *Mindi* was unable to work during the month on account of being laid up for repairs. The *Ancon* and an old French ladder dredge operated in Limon Bay, and the *Chagres* in the old French canal above the dry dock.

Work was continued at the Mindi Hills by two steam shovels, 46,945 cubic yards of rock and earth being removed.

During the month, 12,179 lineal feet of drilling were accomplished at this point.

GATUN LOCKS.

Five shovels worked throughout the month at the lock site, excavating 160,795 cubic yards of material.

The borings during the month aggregated 1,062 lineal feet.

From December 15th to 17th, inclusive, an investigation was made of sand deposits at Nombre de Dios and San Blas. Sand in apparently unlimited quantities was found at both places; that at Nombre de Dios being much coarser than at San Blas, but well graded. Samples were secured from each place and shipped to Washington for testing. San Blas is approximately 90 miles from Colon, and Nombre de Dios approximately 40 miles.

At Porto Bello excavation progressed satisfactorily for the foundations of the crusher plant, boiler and engine house. The material removed was used in the construction of the dock.

The excavation on the line of the tramway leading to the dam was completed. The suction dredge pumped ashore 3,717 cubic yards of sand and gravel from the channel leading to the foot of the tramway dock.

Drilling on the quarry site was discontinued during the month, as it was found that solid rock lies from five to ten feet below the surface.

Specifications and requisitions were submitted for a tugboat and steam shovels for Porto Bello; also for hydraulic pump and pipe and fittings for stripping the quarry.

GATUN DAM AND SPILLWAY.

About the first of the month work was begun exploring material in the vicinity of Gatun dam by means of wash drills, both wash and drive samples being obtained. Investigations were begun to determine the amount of percolation through the material through which holes have been driven, and measures have been taken to determine the velocity with which water percolates through the ground. The borings thus far have covered the area north of the dam site and indicates that satisfactory material for the dam construction can be found there.

Two shovels worked on the Spillway site throughout the month, excavating 69,756 cubic yards of material.

On the lower trestles 69 piles were driven.

The drilling during the month aggregated 3,620 lineal feet.

The 20-inch suction dredge No. 82 was launched on the 19th of December. Parts of dredge No. 83 were assembled and bolted and parts of dredge No. 85 were unloaded during the month.

The rainfall was 5.53 inches.

LA BOCA DIVISION.

Dipper dredge No. 1 operated in the new channel, about one-half mile beyond the wharf, removing 46,409 cubic yards.

Dredge No. A-2 operated in the new channel, two miles beyond the wharf, removing 158,203 cubic yards.

Dredge No. 14 operated in the new channel, about a mile beyond the wharf, removing 144,939 cubic yards.

All of the material removed by these dredges was taken from the Canal prism.

LOCKS AND DAMS.

On December 20, 1907, the President of the United States approved the plan which had been submitted by the Chairman and Chief Engineer, for the change in location of the locks from La Boca to Miraflores. Prior to that time such work as was done at the old location was confined to certain rock excavation in the development of a quarry at La Boca, and the building of 167 feet of trestle.

The investigations of the sub-strata on the Canal axis from Pedro Miguel to the Pacific were continued up to December 10, when the decision was reached to make the change in location of the locks. During the latter part of the month, preliminary arrangements for constructing the locks at the new location were commenced.

Practically no work was done on the La Boca dams, but work was continued on the diversion channel entering the sea at the east of Sosa Hill. This diversion is necessary whether the locks be built at La Boca or Miraflores.

During the month, 1,195 cubic yards of rock and earth were removed from the temporary dam at the sea outlet of this diversion channel.

Work was started on a map which will show space on both sides of the Miraflores locks, for available spoil banks of dredged material.

The rainfall for the month was 4.55 inches.

RELOCATION OF PANAMA RAILROAD.

One new connection track was started during the month to enable steam shovel excavation to be started for the 20x24-foot arch culvert at Caimetillo River. A second connection track, extending from Gorgona gravel pit to the relocated line, directly across the Chagres river, was also started. This makes a total of 14 connection tracks or spurs, seven of which are completed and in use; one is just started, and the remainder are temporarily abandoned.

During the month, 36,650 cubic yards of material were excavated, and 144,189 cubic yards were placed in embankments. The total excavation on the relocated line up to date is 326,926 cubic yards, and the total amount placed in embankments is 1,019,191 cubic yards.

During the month 1,665 feet of temporary trestle were driven at various points on the relocated line.

Work on the construction of bridges and culverts was continued during the month.

The drift at the north end of Miraflores tunnel has been driven a total distance of 158 feet, 48 feet of which were driven in December. The cut at the south end has been completed and 25 feet of drift made.

During the month, 833 feet of permanent track were laid, making a total of 23,410 feet laid to date.

The main track, south of Mindi Junction, was ballasted with gravel for a distance of 1,250 feet.

The force of laborers employed on the relocation work during the month averaged 1,050.

DIVISION OF MUNICIPAL ENGINEERING.

During the month the drafting force was engaged in designing docks for Culebra Island; preparation of a map of the water and sewer system for the new quarantine station; plans for reinforcing waste culvert at Camacho dam; tracings of proposed changes in location of streets in Panama and Colon, and a plan and profile of the Corozal trail.

Field parties continued the topographical survey of Ancon, and made surveys of Culebra and Naos islands for proposed water systems.

Work on the monumenting of streets in the Santa Rosa district, Panama, and on the Pedro Miguel watershed survey was continued during the month.

A force was engaged in macadamizing La Boca road from West 19th street to the Zone line. Two and one-half miles of the Sabanas road were surveyed and cleared, ditches being opened and brush removed to the property lines.

The 8-inch main was extended from Ancon reservoir to La Boca, permitting filtered water being furnished at the latter point. Tanks were placed at La Boca and Sosa Hill, for supplying houses and offices at these points.

The sewer system at Cartagenita was completed during the month.

Work of a miscellaneous character was performed at Rio Grande during the month. The output of the crusher amounted to 3,611 cubic yards.

Pumps and sterilizers were operated at the various stations, a number of fire hydrants were installed, and work on various water systems was continued during the month.

One thousand feet of sewer pipe were laid at Bas Obispo, and 2,100 feet at Gorgona, connections being installed at both places as houses were completed.

A gang was engaged during the month in clearing brush from the slopes of Mount Hope reservoir. The driving of sheet piling was continued on D street canal in Colon. Work was commenced on the road to Cristobal machine shops, and surveys for the Gatun road, and the reserve reservoir at Brazos brook were under way.

DIVISION OF METEOROLOGY AND RIVER HYDRAULICS.

The usual observations and measurements were continued during the month. Two new stations were established upon the Pacific slope.

The mean temperature for the month was about two degrees above normal. A maximum temperature of 92 degrees was reported at Ancon, 93 at Naos, 88 at Bas Obispo and 85 at Cristobal.

The total evaporation at Bas Obispo was 4.89 inches.

Naos observatory was closed at midnight, December 31, 1907, and work was started at Ancon at the same moment.

The rainfall with the exception of Ancon, was below the station average for the month, and the corresponding period of 1906, with an increase of clear days and a diminution of relative humidity.

MECHANICAL DIVISION.

The principal features of the work in this month were as follows:

The installation of machinery in the new shops at Empire and Paraiso.

Work on construction of five track shifters.

Repairs to five old French locomotives.

Repairs to fifty French dump cars.

Erection of eight steam shovels, three Lidgerwood unloaders, one spreader, and partial erection of two steam shovels and seven spreaders.

Work on the 400,000-gallon tank at Gatun.

Completion of the installation of three electric cranes at Empire shops.

Work on power plant at Gorgona and the installation of boilers.

Operation of the foundry at Gorgona, which produced 377,662 pounds of brass and iron castings.

Wiring and miscellaneous work at East La Boca, Ancon, Rio Grande, Culebra, Lirio, Paraiso, Empire, Las Cascadas, Gorgona and Cristobal, and work on the pole line from Las Cascadas to Bas Obispo.

Repairs to locomotives, cars, steam shovels, unloaders, spreaders, track shifters, cranes, piledrivers, and other equipment.

Miscellaneous new and repair work for other divisions and departments.

Laying of 2,601 feet of new track in shop yard at Gorgona.

Usual work in connection with the operation, maintenance and repair of shop, electric light and air compressor pipe lines and plants; also work on shop yards and grounds.

DIVISION OF BUILDING CONSTRUCTION.

During the month, this division completed 44 items of construction, which included 1 planing mill, 1 engine house, 1 market, 1 school house, 2 mess halls, 2 office buildings, the residence of the Chief Sanitary Officer, and a number of type houses.

Repairs were made to 167 buildings; 4 buildings received alterations, and 8 old buildings were demolished.

Department of Labor, Quarters and Subsistence.

During the month of December, there was a continued decrease in the number of employes, the report for the last day of the month showing 1,600 men less on the work than on the corresponding date of the preceding month. There was a decrease of 250 in the force of European laborers, and of 1,150 among the silver artisans. Notwithstanding this reduction it was found necessary to import some common labor, as the colored artisan refuses to accept pick and shovel work, and those laid off either remain idle, or leave the country. One shipment of Barbadians was made during the month,—the first for some time. The outward movement from the Isthmus was large, and for the first time in twelve months, the quarantine reports indicate an excess of departures over arrivals.

The number of separations was the largest in eighteen months, the net decrease in the gold force amounting to nearly 250. The reduction in force occurred principally in the Mechanical Division, and in the Division of Building Construction. Only 100 new men were recruited in the United States.

A number of new quarters were authorized at Ancon, and authority was given to remodel and convert fourteen old French houses into family quarters. Twenty-three families will be cared for in these houses, at an average cost of $473 per family. The least cost per family for new construction is $1,891.50. A type 18 house at Culebra was remodeled into non-housekeeping family quarters for eight families.

During the month, there were 569 unfilled applications for married quarters on file, a slight increase over the preceding month. Ninety-six new applications were filed during the month.

As a result of the change in location of the locks at the Pacific end, a number of gold employes were transferred from La Boca to Corozal, the bachelors being quartered at the hotel.

The silver force at Miraflores increased considerably, 145 Europeans and 175 negroes now being quartered there.

There was a considerable shifting of labor in the Culebra Division during the month, reductions having been made in the vicinity of Tabernilla, Mamei, and Juan Grande, and increases at Pedro Miguel, Gold Hill and Las Cascadas.

The decrease in force was reflected in the subsistence operations. Receipts were less than during the preceding month, though there was an increase in the percentage of gallegos eating at Commission messes. The increased cost of meat, and the additional expenditure of $2,000 on Christmas dinners for all classes of employes, account for a deficit. A more liberal meal and ration was fed during the month as the result of a reduction in the cost of commissary supplies. A scarcity of meat necessitated the purchase of nearly 100,000 pounds of meat in the local markets, at a cost of $10,750. As the average cost of American beef was 6.21 cents per pound, these local purchases represented an increased outlay of $4,500 gold. The meat furnished was poor in quality and spoiled easily.

Department of Civil Administration.

The Panamanian Government has agreed to sprinkle the streets of the city of Panama during the coming dry season, in the same manner employed by the Sanitary Department of the Commission in previous years, and two sprinklers used for this purpose have been transferred to the Panamanian Government.

The Commission, in its operations at Porto Bello, now maintains a force there of about 220 employes. In order to protect the health of the employes at this point, the Panamanian Government was, on December 30, 1907, asked to issue a decree with respect to Porto Bello similar to the decree authorizing the Commission to enforce sanitary and quarantine regulations at Bocas del Toro.

Correspondence was had with the Panamanian Government respecting the abrogation of the resolution adopted by the Commission on August 2, 1905, opening the commissaries of the railroad company to laborers employed by the Commission and the railroad, and the question has been under discussion by a committee representing the Commission, the railroad, and the merchants of Panama.

COURTS.

The Supreme Court was not in session during the month. In the three Circuit courts, three civil and 24 criminal cases were disposed of, and in the District courts 27 civil and 440 criminal cases were tried and settled.

REVENUES.

The stamp sales during December amounted to $7,271, and the fees from money order sales aggregated $1,707.12. There were 72 despatches of mail from the Cristobal exchange office.

During the six months ended December 31, there were registered in the post-offices of the Canal Zone 15,562 domestic letters and parcels, 18,325 foreign letters and parcels, and 29,723 letters and parcels were registered under Government frank, a total of 63,610 pieces of registered matter.

The collections on account of land and building rents aggregated $1,636.47, and the collections on account of distillation licenses, $251.90. The collections on account of retail liquor licenses, which are made semi-annually for the ensuing six months' period, amounted to $20,400 during December. The district taxes amounted to $6,136.03; the fines and costs remitted by the district judges, $2,175 90.

During the month, 13 vessels entered the port of Ancon, and 12 vessels cleared; at Cristobal, 23 vessels entered, and 19 vessels cleared.

Three estates were settled during the month, and two estates were received for administration. At the close of the month 12 estates remained unsettled.

POLICE DEPARTMENT.

The Chief of Police reported 460 arrests for the month, as compared with 423 during November.

Nine convicts began penitentiary sentences, and the terms of three convicts expired. At the close of the month 88 prisoners were confined in the penitentiary.

Three murders in the Canal Zone were reported during the month. The victim in one case was a locomotive engineer employed by the Commission, the object of the crime being robbery.

Seven deaths were reported during the month, requiring the action of the coroner. Of this number, three resulted from railroad accidents, and two from drowning.

DIVISION OF PUBLIC WORKS.

The average daily consumption of water in the city of Panama during the month was 866,628 gallons, and in Colon, 883,680 gallons.

Under contracts with the Republic of Panama, for the collection of water rents, the Government of Panama guarantees the collection, per quarter, from water rents in the city of Panama, of $16,400; in the city of Colon, of $17,500. The contracts provide that the difference between the amount actually collected from private consumers and the amount guaranteed shall be paid by the Government. In view of the relatively large amounts of bills covering this difference, the Panamanian Government has requested a revision of the contracts, looking to the payment by consumers of a larger proportion of the amount guaranteed. In the city of Panama, bills aggregating $16,165.10 were rendered for water rents for the quarter ended December 31; in the city of Colon, the amount of these bills for the same period aggregated $12,435.90.

The slaughter houses at Empire and Gorgona, and the markets at Empire, Gorgona and Cristobal were operated during the month.

FIRE DEPARTMENT.

Three fires in the Canal Zone were reported during the month, none of which resulted in material loss. The Cristobal fire department assisted at two fires in the city of Colon, one of which caused a property loss of $27,050.

Regular inspections of Commission and railroad property were made during the month, with a view to removing, as far as practicable, every possible source of danger.

DIVISION OF SCHOOLS.

During December there was some increase in the enrollment and attendance in the schools for white children over the preceding month. In the colored schools the enrollment was slightly less, with an increase in the attendance.

In order to relieve the crowded condition at the Culebra white school, and to provide space for the proposed high school at that point, a second story was added to the building.

The schools were dismissed for the holidays on December 20, to reopen January 6.

Department of Sanitation.

[The full report from this department was published in THE CANAL RECORD last week]

Very respectfully,

(Sgd.) D. D. GAILLARD,
Acting Chairman

Gatun Steam Shovel Work.

The maximum daily output of the five steam shovels working at the Gatun lock site for the week ending January 11 was made on Monday, January 6, when 8,398 cubic yards, car measurement, were excavated, being an average of 1,680 cubic yards per shovel per day. During the same period there were loaded by the three steam shovels at the spillway 22,848 cubic yards, car measurement. The largest day's loading for the three shovels was on January 9, when 4,896 cubic yards were removed. Steam shovel No. 114 made the largest output for any one day of the week, loading 1,848 cubic yards on January 9.

The Cristobal Union Church.

On Tuesday evening, January 14, the first annual social gathering was held in connection with the Cristobal Union Church. The purpose of the gathering was to review past work and to talk over plans for the new year. There was a large audience. The following speakers dealt with subjects affecting religious work on the Zone: Col. W. C. Gorgas, on "The Relation of the Commission to the Religious Interests;" Mr. A. B. Minear on "The Joint Interest of the Y. M. C. A. and the Church;" Judge Brown on "The Inevitability of the Community Church on the Zone;" Mr. W. A. Graham on "The Sunday School Work;" Mrs. Hiram J. Slifer on "The Influence of Church Life on the Community," and Judge Kerdell on "The Advisability of the Church erecting a Parsonage." A musical program was contributed by a quartet from the Canal Zone band, and individual performers. A committee of ladies, under the direction of Mrs. Thomas E. Brown, furnished refreshments. Chaplain Pearn presided. The church has applied to the Isthmian Canal Commission for land on which to erect a parsonage, and is raising funds for the building.

Fire at Cristobal.

Fire was discovered among some barrels of mosquito oil adjoining the storehouse of the Department of Sanitation at Cristobal on Friday morning, January 17. By the prompt and effective work of the Zone Fire Department the fire was extinguished, after about half an hour's work, with a loss of only 40, of the 311 barrels of oil stored there. No damage resulted to the storehouse, or other buildings in the vicinity. The cause of the fire is unknown, but it was supposed to have been started by a spark from a passing locomotive.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

The schedule of games to be played by the Y M. C. A. Basket-Ball League is as follows:

Jan. 18	...Culebra at Crist'l	Emp. at Gorgona
Jan. 25	...Culebra at Gorg.	Cristobal at Emp.
Feb. 1	...Empire at Cul'bra	Crist'l at Gorgona
Feb. 8	..Crist'l at Cul'bra	Emp at Gorgona
Feb. 15	...Culebra at Emp.	Gorgona at Crist'l
Feb. 22	...Emp. at Culebra	Crist'l at Gorgona
Feb. 29	...Culebra at Crist'l	Gorgona at Emp.
Mar. 7	...Cul. at Gorgona	Empire at Crist'l
Mar. 14	...Crist'l at Culebra	Gorg. at Empire
Mar. 21	...Culebra at Gorg.	Empire at Crist'l
Mar. 28	...Gorg. at Culebra	Cristobal at Emp.
Apr. 4	...Cul. at Empire	Gorgona at Crist'l

CRISTOBAL.

A smoker in honor of the Cristobal team, winner of the first trophy cup of the Isthmian bowling league, was given to all members of the Y. M. C. A. on Saturday evening, January 11. Judge Thos. E. Brown, jr, presided as toastmaster, and the following toasts were responded to: "The Team," E. H. Parmelee; "Stickatitiveness," C. A. Gillmartin; "Individual Development," Geo. Barte; "Association Spirit," A. Bruce Minear. Afterwards there was an exhibition of torch swinging by R. E. Gourlie, and a sleight-of-hand performance by W. O. Adams. A large crowd was present and everyone had a pleasant evening.

Mr. H. L. Stuntz of Empire, gave an address before the Sunday club on January 12. His subject was "Success."

The character study class, which convenes every Thursday evening, is meeting with much favor among the members. The short debate, which is a feature of every session, adds much interest. All members are cordially invited to attend.

A local bowling tournament has been started with the following teams entered: A, Captain Strong; B, Gillmartin; C, Nelson; D, Taylor; E, Barte; F, Gillman.

CULEBRA.

The tournament of the Culebra Chess Club, which started Dec. 9, 1907, was finished January 13, 1908. The standing of the players at the close of the tournament was as follows:

CLASS A.

	Won	*Lost*
Wilson, Chas.	13	2
Freeman, Lee	12½	2½
Warner, J F.	11½	3½
Rupp, M. E.	11	4
DuBois, L.	10½	4½
Maenner, L. T.	10	5
Holz, Theo	8	7

CLASS B.

Forbes, S. G.	7	8
Strong, G. W.	6½	8½
Johnson, G.	6	9
Wilson, Clar.	5½	9½
McIntyre, W. C.	4½	10½
Oliver, R. H.	4	11
Chambers, A. L.	3½	11½
Wempe, H. J.	3½	11½
Killer, J. C.	3	12

The pool tournament recently held at the Commission club house at Culebra, by members of the Y. M. C. A., was finished on January 15. The players and their percentages are as follows:

Player—	*Won*	*Lost*	*Per cent.*
Chapple	15	2	882
Stevens	13	4	764
Fleishman	13	4	764
South	13	4	764
Gamble	12	5	705
Flynn	11	6	647
Thomas	10	7	589
Chambers	9	8	562
Delehanty	9	8	562
Thweat	8	9	529
Vogel	8	9	470
Holstead	7	10	412
Crockett	7	10	412
McCann	6	11	353
Coulter	5	11	312
Perrat	4	13	235
Winters	2	14	125
Harrington	0	17	000

The four leading men will compose the Culebra team in future contests with teams from the other associations, for the championship of the Y. M. C. A. on the Isthmus.

Sojourners Lodge No. 874, A. F. and A. M., will meet at its hall in Colon on Saturday, January 25, at 7:30 p. m. in Postponed Ordinary Communication. Masons in good standing are fraternally invited to be present.

JOHN LAGERQUIST.
Secretary.

Colon, Jan. 20.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending January 10:

FRESH MEATS.

		Price. cts
Beef, sirloin, roast	*per lb...*	*25*
Beef, rump, roast	*do*	*25*
Beef, Porterhouse	*do*	*25*
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	*18*
Beef, rib-roast, second-cut	*do*	*15*
Beef, chuck-roast	*do*	*12*
Beef, soup	*do*	*6*
Beef, stew	*do*	*10*
Beef, corned	*do*	*10, 12 14*
Beef, suet	*do*	*6*
Steaks, sirloin	*do*	*25*
Steaks, Porterhouse	*do*	*25*
Steaks, rump	*do*	*25*
Steaks, tenderloin	*do*	*25*
Steaks, round	*do*	*14*
Veal, cutlets	*do*	*21*
Veal, short-cut chops	*do*	*20*
Veal, loin	*do*	*13*
Veal, entire forequarters	*do*	*9*
Veal, for stewing	*do*	*9*
Mutton, entire forequarters	*do*	*9*
Mutton, short-cut chops	*do*	*18*
Mutton, leg	*do*	*14*
Lamb, for stewing	*do*	*10*
Lamb, entire forequarters	*do*	*10*
Lamb, chops	*do*	*28*
Lamb, legs	*do*	*18*
Pork, cuts	*do*	*20*

MISCELLANEOUS.

Livers, beef	*per lb...*	*9*
Livers, calf	*each...*	*60*
Sausage, pork	*per lb...*	*16*
Sausage, Bologna	*do*	*15*
Sausage, Frankfurter	*do*	*15*
Sweet bread, veal	*each...*	*1.20*
Sweet bread, beef	*per lb...*	*25*
Tripe, pickled, Honeycomb	*do*	*12*
Oysters, ½-gallon kegs	*each...*	*70*
Oysters, 1-qt. tins, square	*do*	*45*
Pigs' tongues	*per lb...*	*12*

POULTRY AND GAME.

Chickens, dressed (milk-fed)	*each...*	*1.15*
Fowls	*do*	*90*
Turkeys	*per lb...*	*26½*
Broilers, (chicken frys)	*each...*	*75*
Squabs	*do*	*35*
Eggs, fresh	*per dozen*	*45*
Fresh fish (3 to 6 lbs.)	*per lb...*	*14*

CURED MEATS AND LARD.

Bacon, strips	*per lb...*	*23*
Bacon, English breakfast, slic'd	*do*	*§26*
Ham, sugar-cured, sliced	*do*	*§25*
Ham, one-half (for boiling)	*do*	*§20*
Ham, Yorkshire (imported)	*do*	*25*
Hams, Westphalia	*do*	*45*

DAIRY PRODUCTS.

Butter, prints, prime quality	*per lb...*	*40*
Cheese, cream, Phila.	*each*	*22*
Cheese, Neufchatel	*do*	*6*
Cheese, Roquefort	*per lb...*	*45*
Cheese, Young America	*do*	*22*
Cheese, Swiss	*per lb...*	*30*
Cheese, Gouda	*do*	*30*
Cheese, Camembert	*each...*	*28*
Cheese, Edam	*each..*	*90*
Milk	*quart*	*15*

FRUITS AND VEGETABLES.

Pears	*per lb...*	*10*
Pineapples	*each...*	*20*
Limes	*per hun..*	*36*
Bananas	*per dozen*	*5*
Cranberries	*per lb...*	*10*
Grape Fruit	*each*	*2½*
Apples	*per lb...*	*5½*
Apples, fancy table	*per lb...*	*8*
Beets	*per lb..*	*5*
Oranges	*per dozen*	*10*
Tomatoes	*per lb...*	*10*
Grapes	*do*	*14*
Pumpkins	*per lb...*	*5*
Lettuce	*per lb ..*	*14*
Celery	*bunch*	*18*
Cucumbers	*per lb...*	*28*
White potatoes	*do*	*2½*
Cabbage	*per lb...*	*2½*
Turnips, yellow and white	*do*	*3*
Radishes	*do*	*6*
Onions	*per lb...*	*3½*
Cauliflower	*do*	**7*
Sauer kraut	*do*	*3½*
Parsnips	*do*	*6½*
Plantains	*dozen...*	*12*
Squash, summer	*each...*	*5*
Carrots	*per lb...*	*4½*
Sweet Potatoes, American	*do*	*3*
Egg Plant	*per lb...*	*10*
Vegetable marrow	*each*	*9*

NEW ARTICLES		*Price.* CTS.
Skirts, ladies', white nainsook, stock No. 38,218	*each...*	*4.65*
Skirts, ladies', white nainsook, stock No. 38,219	*do*	*7.15*
Skirts, ladies', white, stock No. 38,221	*each...*	*1.50*
Skirts, ladies', white, stock No. 38,222	*do*	*2.15*
Skirts, ladies', white, stock No. 38,223	*do*	*95*
Camisoles, ladies', stock No. 38,224	*do*	*1.05*
Camisoles, ladies', stock No. 38,225	*do*	*1.25*
Towels, hemmed, huck, 20x38, stock No. 38,226	*do*	*22*
Towels, hemmed, huck, 23x43, stock No. 38,227	*do*	*28*
Towels, hemmed, huck, 22x42, stock No. 38,228	*do*	*23*
Towels, hemmed, huck, 24x34, stock No. 38,229	*do*	*25*
Cases, plain, linen, pillow, stock No. 38,231	*do*	*45*
Linen, white, costume, 36-inch, stock No. 38,232	*yard...*	*35*
Imperial, extra heavy white linen, 27-inch, stock No. 38,233	*do*	*95*
Cloth, ivory, costume, 36-in., stock No. 28,234	*do*	*20*
Towels, white, Turkish, stock No. 38,235	*each...*	*53*
Towels, white, Turkish, stock No. 38,236	*do*	*48*
Suiting, mixture, 56-in., stock No. 38,246	*yard...*	*2.20*
Drill, khaki, 28-in., stock No. 38,247	*do*	*25*
Shirts, stock No. 38,289	*each...*	*1.50*
Shirts, stock No. 38,291	*do*	*1.80*
Shirts, stock No. 38,292	*do*	*2 20*
Soap, stock No. 38,375	*cake...*	*20*
Cream, massage, stock No 38,377	*jar......*	*40*
Polish, nail, stock No. 38,378	*do*	*20*
Food, skin, stock No. 38,376	*do*	*1.25*
Sticks, shaving, Williams', large size, stock No. 38,141	*each...*	*15*
Hats, stock No. 38,293	*do*	*2.35*
Hats, straw, No. 119, stock No. 38,398	*do*	*2.10*
Hats, straw, Nos. 120a. 131, 102, 109, 106, stock No. 38,399	*do*	*1.55*
Boots, men's, tan, sporting, stock 38,412	*pair...*	*6.25*
Perfume, eau de quinine, stock No. 38,413	*bottle*	*1.00*
Perfume, eau de cologne, stock No. 38,413	*do*	*1.00*
Perfume, eau de toilette, stock No. 38,414	*do*	*1.60*
Perfume, brilliantine, New-Mown Hay, stock No. 38,415	*do*	*50*
Perfume, eau de toilette, violette de Parme, stock No. 38,416	*do*	*1.15*
Perfume, eau de toilette, violette de Parme, stock No. 38,417	*do*	*55*
Perfume, eau de toilette, Preciera, stock No. 38,417	*do*	*55*
Perfume, vegetal preciera, stock No. 38,415	*do*	*50*
Perfume, vinougre Txora, stock No 38,415	*do*	*50*
Perfume, vinougre Txora, stock No. 38,418	*do*	*25*
Perfume, eau de cologne, stock No. 38,419	*do*	*30*
Perfume, brilliantine, violette de Parme, stock No. 38,415	*do*	*80*
Perfume, essence heliotrope, blanc, stock No. 38,421	*do*	*75*
Perfume, eau de toilette, Marie Louise, stock No. 38,421	*do*	*75*
Perfume, eau de toilette, Dauphine Iris, stock No. 38,422	*do*	*60*
Perfume, essence La Corrida, stock No. 38,423	*do*	*2 50*
Perfume, eau de cologne, stock No. 38,417	*do*	*55*
Perfume, brilliantine, heliotrope, blanc, stock No. 38,415	*do*	*50*
Perfume, brilliantine, Lilas de Franc, stock No. 38,415	*do*	*50*
Perfume, essence, Marie Louise, stock No. 38,414	*do*	*1.60*
Cream cold, stock No 38,424	*do*	*25*
Powder, cydalite, stock No. 38,425	*per box*	*45*
Powder, Oullet de Franc, stock No. 38,426	*do*	*50*
Powder, Parthinis, stock No. 38,426	*do*	*50*
Powder, Marie Louise, stock No. 38,427	*do*	*60*
Powder, Genet d'Or, stock No. 38,427	*do*	*60*
Soap, triple, violette de Parme, stock No. 38,428	*do*	*75*
Soap, Brira Pampas, stock No. 38,429	*do*	*35*
Soap, violette de Parme, stock No. 38,431	*do*	*12*
Ribbon, shoe, lace, black, white and tan, stock No. 38,436	*do*	*90*
Papeteries, No. 335, stock No. 38,437	*do*	*95*

** Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries.

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon.

DEPARTMENTS.

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Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

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W. T. Haynie, Secretary.

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D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
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Mrs. C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
David V. Stratton, Chief Clerk.

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R. M. Sands, Secretary.

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Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer.
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E. A. LeMay, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

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J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.
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Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

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Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, Chief Clerk
C. E. Weidman, Chief, Fire Department, Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
Translators: F. H. Sheibley and Charles M. Brown.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

The steamship *Sheila* sailed from Seattle, Wash., January 15, with a cargo of 2,981,000 feet B. M. lumber for the Isthmian Canal Commission and Panama railroad.

The steamship *Aztec* arrived at La Boca on January 18, with a cargo of 21,000 sacks of coffee. The *Newport* arrived January 19 with 8,000 sacks, and the *Mackinaw* arrived January 20 with 10,000 sacks. This coffee is all billed through to Atlantic ports via the Panama railroad.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Prinz Joachim	*H.-A.*	*Saturday*	*Jan. 18*
Colon	*P.R.R.*	*Monday*	*Jan. 20*
Advance	*P.R.R.*	*Saturday*	*Jan. 25*
Sarnia	*H.-A.*	*Saturday*	*Jan. 25*
Magdalena	*R.M.*	*Saturday*	*Jan. 25*
Panama	*P.R.R.*	*Thursday*	*Jan. 30*
Prinz Aug. Wilhelm	*H.-A.*	*Saturday*	*Feb. 1*
Allianca	*P.R.R*	*Tuesday*	*Feb. 4*
Siberia	*H.-A.*	*Saturday*	*Feb. 8*
Atrato	*R.-M.*	*Saturday*	*Feb. 8*
Finance	*P.R.R.*	*Monday*	*Feb. 10*
Colon	*P.R.R.*	*Saturday*	*Feb. 15*
Prinz Joachim	*H.-A.*	*Saturday*	*Feb. 15*
Advance	*P.R.R.*	*Thursday*	*Feb. 20*
Sarnia	*H.-A.*	*Saturday*	*Feb. 22*
Trent	*R.-M.*	*Saturday*	*Feb. 22*
Panama	*P.R.R.*	*Tuesday*	*Feb. 25*
Prinz Aug. Wilhelm	*H.-A.*	*Saturday*	*Feb. 29*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Dunottar Castle	*P.R.R.*	*Wednesday*	*Jan. 22*
Finance	*P.R.R.*	*Monday*	*Jan. 27*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Jan. 28*
Atrato	*R.-M.*	*Wednesday*	*Jan. 29*
Colon	*P.R.R.*	*Sunday*	*Feb. 2*
Prinz Joachim	*H.-A.*	*Tuesday*	*Feb. 4*
Advance	*P.R.R.*	*Friday*	*Feb. 7*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Feb. 11*
Panama	*P.R.R.*	*Wednesday*	*Feb. 12*
Trent	*R.-M.*	*Wednesday*	*Feb. 12*
Allianca	*P.R.R.*	*Monday*	*Feb. 17*
Prinz Aug. Wilhelm	*H.-A.*	*Tuesday*	*Feb. 18*
Finance	*P.R.R.*	*Sunday*	*Feb. 23*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Feb. 25*
Oroya	*R.-M.*	*Wednesday*	*Feb. 26*
Colon	*P.R.R.*	*Friday*	*Feb. 28*
Prinz Joachim	*H.-A.*	*Tuesday*	*Mch. 3*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Tagus	*R.M.*	*Tuesday*	*Jan. 21*
Magdalena	*R.M.*	*Tuesday*	*Feb. 4*
Atrato	*R.M.*	*Tuesday*	*Feb. 18*
Trent	*R.M.*	*Tuesday*	*Mch. 3*
Atrato	*R.-M.*	*Tuesday*	*Feb. 18*

The Panama railroad steamships sail at 3 p.m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 1 p.m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Floridian*, about Feb. 10, and *Jamaican*, about Feb. 22.

The ocean-going tug *E. C. Reynolds*, which is on her way from New York to La Boca, for use at the Pacific end of the Canal, arrived at Rio de Janerio, Brazil, January 17.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Jan. 22, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Allen, Dr. A. H.
Allison, Chas.
Archer, Clifford
Argue, James
Bailey, C. E.
Bridges, Joseph
Brown, H. F.
Deaton, Charles
Dennis, Harry G.
Ervin, Mrs. Jno.
Gilman, Wm. F.
Gilmore, Jno F.
Hawson, Leslie, Marine Engr.
Hopkins, Geo.
Hinkle, Frank
Johnson, E. E.
Kuamers, Adolph
Nims, W. W.
Puce, Harry
Robertson, A. G.
Smith, A. G.
Smith, C. L.
Swan, Mrs. Allen
Stephens, Donald
Thompson, Miss M. B.
Turner, Fred.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, JANUARY 29, 1908. No. 22.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed by the full name and address of the writer.

NOTES OF PROGRESS.

Cost of Wider Canal Locks.

The increase in the width of the locks of the Canal from 100 to 110 feet, recommended by the Isthmian Canal Commission and approved by the President on January 15, will add about $5,000,000 to the cost of their construction. In a memorandum to the Secretary of War the Commission says the cost of all the locks at a width of 100 feet was estimated at $52,580,011, and that the cost at a width of 110 feet will be $57,690,850 "a difference too small to be considered, assuming the necessity for the increased width, as stated by the navy."

The General Board of the Navy, in a memorandum to the Secretary of the Navy, dated October 29, 1907, expressed the opinion "that the width of the locks as now fixed, namely, 100 feet is insufficient for probable ships of future construction, and that sound policy would dictate an increase to a clear width of 110 feet."

All field work in connection with the construction of the locks, up to the present time, has been confined almost exclusively to excavating the sites for them. The increase in width simply makes it necessary to increase the width of the excavation by about 35 feet. Generally speaking, the addition of 10 feet in the width of the lock chambers will add about 10 per cent. to the cost of the locks proper, and this will constitute the entire addition to the cost of the Canal in consequence of the change in width.

The correspondence between the Secretary of War and the President is appended:

War Department,
Washington, Jan. 13, 1908.

My Dear Mr. President:

I submit herewith a letter just received from the Chairman of the Isthmian Canal Commission, containing a resolution of that Commission widening the locks of the Isthmian Canal from 100 feet to 110 feet, in accordance with the opinion expressed by the general board of the navy, on the ground that the width of the locks as now fixed—namely, 100 feet—is insufficient for probable ships of future construction, and that sound policy would dictate an increase to a clear width of 110 feet. This will increase the cost of the Canal $5,000,000, and will somewhat reduce the capacity of the Canal because of the more water and time required to make the lockages. This, of course, can be met so far as the water is concerned, by providing a dam at Alhajuela, and thus increasing the supply to be held for discharge into the Gatun lake in the dry season when lockages will tend to reduce its level. After consideration, it seems to me wise to widen the locks accordingly, even at the risk of slightly reducing the capacity of the Canal so far as the number of steamships to be passed through it in a day is concerned.

Very respectfully yours,
Wm. H. Taft.

The President.

The White House,
Washington, Jan. 15, 1908.

To The Secretary of War:

I have received your letter of January 13, and approve of the proposition to increase the width of the locks of the Isthmian Canal to 110 feet.

Theodore Roosevelt.

Canal Railway Equipment.

The following is a list of the railway equipment used in the construction of the Canal and in service at the end of the year 1907:

157	American locomotives.
104	French locomotives.
1,340	40-ton flat cars.
124	50-ton flat cars.
299	12-yard American dump cars.
241	20-yard American dump cars.
461	6-metre French dump cars.

Working Force of the Canal.

The total number of men engaged actively in work along the line of the Canal on December 31, 1907, was 28,703, of which number 23,763 were in the employ of the Isthmian Canal Commission and 4,940 in the employ of the Panama railroad On the same date there were actually working in the Department of Construction and Engineering 18,940 men divided as follows:

Gold	3,573
Monthly (West Indian)	1,626
Artisans (West Indian) 32 cents silver and over per hour	4,582
Artisans (West Indian) 26 cents silver per hour.	1,110
Common laborers (West Indian and Europeans)	8,049
Total	18,940

The following table shows the relative size of the force of employes for October, November and December of last year:

	Isthmian Canal Commission			P. R. R. Co.
	Gold	*Silver*	*Total*	*Gold & Silver*
October	4,992	20,836	25,828	6,189
November	4,822	20,507	25,329	6,148
December	4,668	19,095	23,763	4 940

This shows a reduction during these three months of 2,065 men. This reduction was the result of several causes, one of which was that nearly all buildings, including quarters, mess houses, hotels, and storehouses, necessary for the prosecution of the Canal work have been completed, and the Building Construction Department, therefore, has considerably reduced its force. Another cause was that several of the departments found that they were exceeding their appropriation for the fiscal year, and a temporary reduction in force was therefore necessary. Finally, now that the work is well organized in all departments, and the force has become much more stable than formerly, it is found that the same amount of work can be done with fewer men.

New Ancon Telephone Exchange.

Active operations for the erection of a new central telephone exchange at Ancon began on January 13. The building will be a two story structure, 20 by 40 feet, and is located opposite the new Ancon post-office. The lower floor of the exchange will be used for the switchboard and for a repair and storeroom. The upper floor will be occupied by the manager of the exchange and his family as living quarters.

This new central exchange will take the place of the old one in the Panama railroad station, (which will be abolished), and will include the telephone systems at Panama, Ancon and La Boca. As heretofore, there will be both day and night operators and, in order to facilitate business during rush hours, an additional operator will be on duty between 8 a. m. and 5 p. m. By this arrangement there will be two operators constantly on duty during office hours, when they are most needed.

It is expected that the new exchange will be ready for use about March 15, and that it will make a decided improvement in the telephone service.

European Laborers.

The total number of laborers imported from Europe for work on the Canal during 1906 and 1907 was 9,914. With the exception of a few who came from Cuba all of these embarked from French or Spanish ports. At the end of the year the number of Europeans actually at work for the Commission was 4,793. Of the other 5,121, a portion had returned to the countries from which they came, others had gone to Chile, Peru, Bolivia and Ecuador on railway work in progress there, and a few to the United States. Those who remained were the most desirable of the lot; in other words, it is a case of the survival of the fittest. In the main their work and conduct are regarded by the Commission as satisfactory. Their efficiency is rated at about double that of the West Indian laborers. The common laborers among them are paid

NOTES OF PROGRESS.

(*Continued*)

40 cents silver an hour, without subsistence. The West Indian common laborers are paid 13⅓ cents silver an hour, with subsistence. The West Indians of the artisan class are paid 36 cents and 32 cents silver an hour.

Street Travel in Panama.

In order to ascertain the amount of travel that there is on the North avenue incline and steps, near the market in Panama between 9th and 11th streets, the Division Engineer of the Department of Municipal Engineering stationed a man at that point on January 4 with instructions to keep a tally of the number of people and vehicles that passed both ways between the hours of 6 a. m. and 6 p. m. The tally showed a total of 10,480 people during those hours, 5,377 by the north side steps, 875 by the south side steps, and 4,238 by the incline. The tally also showed 1,365 vehicles, of which 492 were cabs and 875 wagons and carts. The heaviest travel was during the morning hours. Fifteen months ago, before this street was paved and the incline constructed, the street was very little used, scarcely 300 people a day passing this point.

Gatun Steam Shovel Work.

The maximum daily output of the six steam shovels working at the Gatun lock site, for the week ending January 18, was made on Monday, January 13, when 8,602 cubic yards, car measurement, were excavated, being an average of 1,434 cubic yards per shovel per day. During the same period the three shovels at the spillway excavated a total of 27,720 cubic yards, car measurement, the largest daily output being on January 16, when 4,884 cubic yards were removed, an average of 1,628 cubic yards. Steam shovel No. 114 made the largest output for any one day during the week, loading 2,196 cubic yards on January 15.

Dredging at La Boca.

The maximum daily output by dredges A-2 and 14 of the La Boca Dredging Division for the week ending January 25, scow measurement, was as follows: January 24, dredge A-2, 6,895 cubic yards; January 20, dredge 14, 6,947 cubic yards No work was done by the dipper dredge as it was undergoing repairs. The total output of the two dredges for the same period was: Dredge A-2, 37,973 cubic yards; dredge 14, 38,530 cubic yards. The sea-going suction dredge *Culebra* did its first day's work on January 21, and for the five days excavated 33,900 cubic yards. This gives a combined total for the week of 110,403 cubic yards.

No Mechanical or Clerical Work in Venezuela.

The American Consul at La Guaira, Venezuela, states that within the past few months he has been appealed to for help by a number of persons who claimed to be employes of the Isthmian Canal Commission, and that they exhibited letters which indicated they were on leave of absence or had resigned their positions and had gone to Venezuela in search of work. The Consul calls attention to the fact that the steamship companies, having sailings from La Guaira to Colon, require a deposit from passengers, in addition to the regular passenger rate. This deposit is $40 for first class, and $20 for second or third class passengers, and as the lines at present do not accept any but first class passengers for Colon, the first-named amount is demanded. Believing that the cost of the return trip would be the same as for the outward passage, the persons referred to have found themselves without sufficient funds to make the deposit required and have accordingly appealed to the Consul for assistance.

As a means of preventing ex-employes, who have either resigned or been discharged from the service of the Commission, from visiting Venezuela in search of employment, only to be disappointed, the Consul desires to have published for the information of all, that the obtaining of either mechanical or clerical employment in Venezuela is absolutely impossible, and that no one should go there unless he has previously signed a contract, thereby assuring and guaranteeing him work.

Kramer's Watch Found.

On Saturday, January 18, 1908, the Canal Zone police found the watch that was taken from Philip F. Kramer, who was murdered some time ago at Paraiso, in the possession of a Spanish workman near Cucaracha Y, opposite Paraiso. The Spaniard was at once arrested and taken to the police station and a thorough investigation as to how he came into the possession of the watch was made. He claims that he found it on the ground, and that when he picked it up it was in excellent condition and started running upon being wound up. The spot where he claims to have found it is exposed to the elements and it could not have lain there since the murder of Kramer (29 days before), and still be in good condition.

Thirty-three Spaniards belonging to the gang in which the man who had the watch worked were thoroughly investigated, but nothing important developed. The investigation of the Kramer case is being actively pressed and the Chief of Police expects results in the near future that will lead to the apprehension of the murderer.

Lost Money Order.

If the finder of postal money order No. 25,665, payable at New York, in favor of Mr. Henry J. McKeown, will return same to the Director of Posts, Ancon, C. Z., it will be delivered to the owner.

Furniture Allowance.

The Department of Labor, Quarters and Subsistence desires that special attention be given to the following:

Culebra, January 20, 1908.

Circular No. 18.

TO ALL CONCERNED:

The semi-annual inventories of the Department of Labor, Quarters and Subsistence show a very unequal distribution of furniture In order to correct this in a measure, it is ordered that all furniture in excess of the allowance authorized by the Commission at its meeting of August 15, 1907, be removed and reissued.

Old French furniture, articles of furniture which were on former lists but not in the present allowance, and any articles not suitable for issue under the rulings of the Commission, will not be considered.

List showing present allowance for families receiving less than $400 per month:

1 Range
1 Double bed
2 Pillows
2 Kitchen chairs
6 Dining chairs
1 Chiffonier
2 Center tables
1 Mosquito bar
1 Refrigerator
1 Double mattress
1 Kitchen table
1 Dining table
1 Sideboard
1 Dresser
1 Bedroom mat
3 Wicker rockers

List showing articles not carried in present list, which will not be considered in excess:

Porch chairs
Wardrobes
Lamp stand
Towel rack
Porch swings
Lamps
Porch rockers
Bedroom rockers
Bedroom chairs
Porch settees
Serving tables

JACKSON SMITH.
Manager.

Approved:
D. D. GAILLARD.
Acting Chairman
and Chief Engineer.

Bay Rum as a Beverage.

The following is an extract from a report recently made to the Chief of Police:

"I have the honor to report that I remained in Cristobal to-day, attending session of circuit court at this point.

"Several criminal cases were on the docket but were all continued with the exception of the case of Wing Lung, charged with violation of liquor regulations. Wing Lung was tried in the district court for selling bay rum as a beverage in his store at Gatun. He was found guilty of violation of the liquor regulation, and fined $25 and costs. His case was appealed to the circuit court and he was tried to-day before Judge Collins, who confirmed the decision of the district court and imposed the same fine. It developed that bay rum is about 61 per cent. alcohol, and the court held that the selling of same as a beverage, is illegal. (The court did not pass on the selling of bay rum other than as a beverage). Judge Brown has found others guilty of this offense and postponed sentence until this test case was settled."

CANAL EXPENDITURES.

The following table shows expenditures for Canal work, classified monthly, since July 1, 1907. The figures give only expenditures in connection with the work which have been located. In addition, there have been some disbursements, such as purchasing material, etc., which it will not be possible to locate to a specified account until their use has been finally determined:

Mo. 1907	Civil Administration.	Sanitation.	Construction and Engineering.	Municipal Improvements.	Plant Account.	Total.
Prior to Jul. 1	$1,412,646.40	$4,518,270.90	$13,194,307.54	$4,064,785.76	$18,484,288.82	$41,674,299.42
July..	51,183.84	149,270.94	962,477.19	146,131.93	580,562.68	1,889,626.58
Aug..	67,548.53	214,018.03	1,196,803.45	192,227.75	767,153.24	2,437,751.00
Sep...	63,239.62	253,108.77	1,194,304.85	107,840.85	1,068,300.58	2,686,794.67
Oct...	53,227.97	189,196.38	1,372,311.81	123,939.88	1,131,450.91	2,870,126.95
Nov..	54,529.02	166,381.82	1,217,120.31	115,625.44	1,105,590.16	2,659,246.75
Tot'l	$1,702,375.38	$5,490,246.84	$19,137,325.15	$4,750,551.61	$23,137,346.39	$54,217,845.37

EXECUTIVE ORDERS.

The following orders of the President, relating to the Canal Zone, are published for the information and government of all concerned:

Vagrants, Mendicants and Loiterers.

Under authority vested in me by law, it is ordered:

That Title XIV of Act No. 14 of the Penal Code of the Laws of the Canal Zone be amended, effective January 15, 1908, by adding thereto the following section:

SECTION 293-A.

SUB-SECTION 1. Every vagrant or person found within the Canal Zone without legitimate business or visible means of support; and

SUB-SECTION 2. Every mendicant or habitual beggar found within the Canal Zone; and

SUB-SECTION 3. Every person found within or loitering about any laborers' camp, mess house, quarters, or other Isthmian Canal Commission building, or any railroad car, or station or other building of the Panama Railroad Company, or any dwelling or other building owned by any private person, without due and proper authority and permission so to be; or peddling goods or merchandise about any laborers' camp or mess house during hours when laborers are ordinarily employed at work, or in or about places where groups of men are at work; and

SUB-SECTION 4. Every person found in the Canal Zone in an intoxicated condition or under the influence of liquor; and

SUB-SECTION 5. Every person who shall, in the Canal Zone, engage in any kind of disorderly conduct or breach or disturbance of the peace; shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not to exceed $25, or by imprisonment in jail not to exceed 30 days, or by both such fine and imprisonment.

THEODORE ROOSEVELT.

THE WHITE HOUSE,
January 9, 1908.
(No. 729)

Sale of Unclaimed Property.

Under authority vested in me by law, it is ordered:

1. Whenever there shall remain in the possession of any common carrier within the Canal Zone any freight, baggage, or other property, transported by or deposited with the common carrier at any point in the Canal Zone, which shall have remained unclaimed by the owner or consignee for a period of six months, and upon which there shall remain unpaid or shall have accumulated freight charges or charges for handling and storage, it shall be lawful for the common carrier to sell the same at public auction, at some designated point within the Canal Zone, after having advertised the sale, with a short description of the property to be sold, for a period of three weeks in some newspaper of general circulation within the Canal Zone.

2. In all cases where any such property is of a perishable character, the carrier shall be authorized to apply to any judge of the circuit court within the Canal Zone, or, if the property shall be of less value than one hundred dollars, to any district judge within the Canal Zone, upon an affidavit describing briefly the property to be sold, its unclaimed state, and its perishable character for an order for an immediate sale, upon such terms as to notice as the nature of the case may admit of, and as to such court or courts as shall seem proper.

3. Before advertising the property for sale the same shall be opened by the carrier, and if it contains any indication of the owner or consignee, a written notice of the existence of the unclaimed property and of the intention to sell the same at public auction shall be mailed by the carrier to the owner or consignee, at any indicated address, four weeks before the date of actual sale.

4. The residue of moneys received from such sale under the foregoing sections, after deducting the accumulated charges for transportation, cost of handling and storage, demurrage, and the cost and expense of the proceedings authorizing the advertising and sale, shall be held for a period of three years, and shall be paid to the owner of such freight, baggage or other property, on demand. If at the end of the three-year period the said residue shall not have been claimed by the owner, it shall be paid into the Treasury of the Canal Zone Government, to the credit of the public school fund.

THEODORE ROOSEVELT.

THE WHITE HOUSE,
January 9, 1908.
(No. 730.)

Establishing Three Judicial Circuits.

Under authority vested in me by law, it is ordered:

That Section 22 of Act No. 1 of the Laws of the Canal Zone is hereby amended to read as follows:

SECTION 22 —The Canal Zone, Isthmus of Panama, shall be divided into three Judicial Circuits.

The First Judicial Circuit shall be composed of the Administrative District of Ancon.

The Second Judicial Circuit shall consist of the Administrative Districts of Emperador and Gorgona.

The Third Judicial Circuit shall be composed of the Administrative Districts of Cristobal.

THEODORE ROOSEVELT.

THE WHITE HOUSE,
January 9, 1908.
(No. 731.)

Escape of Transients.

Under authority vested in me by law, it is ordered:

1. That, until further ordered, Law No. 6, of March 11, 1904, of the Republic of Panama, as applied and construed by the Executive Decree of April 15, 1904, is hereby extended to and made applicable to the Canal Zone.

2. The fines provided for in the said law shall apply to any company or individual who shall omit to prevent the escape of any transient of the nationality named in said law into the Canal Zone, and shall in all cases be imposed by the court of the Canal Zone district in which the violation of the law occurs, upon information of the Collector of Revenue or of the Prosecuting Attorney of the Canal Zone.

This order shall not apply to any individuals introduced by the Isthmian Canal Commission or by its authority, for the purpose of temporarily laboring upon or in connection with the construction of the Isthmian Canal.

THEODORE ROOSEVELT.

THE WHITE HOUSE,
January 9, 1908.
(No. 732.)

Arrest for Forgery.

Victo Labeau, a Martiniquan, was arrested at Empire on January 15 for attempting to pass a forged silver pay certificate. When questioned, he said the certificate had been given to him by a Bermudian named George D. Trotman, who was at once arrested and found to have several additional forged pay certificates in his possession. Further investigation caused the arrest of Charles Reed, a Jamaican, in whose room the police found several hundred dollars worth of stolen commissary supplies. Developments after their arrest led the police to believe that Trotman and Reed are the men who have recently succeeded in having cashed silver pay certificates amounting to $580 which turned out to be forgeries. Trotman is an excellent penman and can imitate closely the handwriting of various timekeepers. He showed extreme cunning and exactness in the forgeries of the pay certificates which he attempted to pass with the aid of his accomplices. These arrests make a total of 38 by the Zone police for forgery and attempting to pass forged documents within the last three years.

Picnic on Washington's Birthday.

Washington's Birthday anniversary, February 22, will be celebrated by the Improved Order of Red Men in a manner enjoyable to all. Committees have been appointed and arrangements are being perfected to entertain the members, their families and friends, with a basket picnic at Colon, together with an old time barbecue. Games of all sorts will be in abundance. The outing will be followed by a dance at Cristobal on the same evening. Members desiring to attend will please signify their intention by registering with the nearest tribe to which they are located. This is absolutely necessary, in order that the Committee may know in advance how many may be expected, and preparations made accordingly.

J. E. BURNS,
Press Committee

Baseball Challenge.

THE CANAL RECORD:

The Gorgona shop team desires to challenge, through your paper, any baseball team on the Isthmus, barring league players. For further information write D. J. Kenney, Manager, Gorgona shop team, care Y. M. C. A., Gorgona, C. Z.

Notice to Foresters.

THE CANAL RECORD:

Any members of the Independent Order of Forester now residing on the Isthmus, or who have recently been Foresters will hear something of personal interest to them if they will communicate with

CHAS. H. JONES,
Postal Clerk.

Cristobal, Jan. 26.

"TWO SUGGESTIONS."

Partial Approval.

THE CANAL RECORD:

I heartily indorse one of the "Two Suggestions" made by Paraiso employe in your last issue, viz., the curfew law, which could be established in all bachelor quarters. Eleven o'clock would suit everybody better than 10 p. m., because those who attend Y. M. C. A. classes, tournaments, entertainments, lodge meetings, and more intimate rendezvous, would be put to a great deal of inconvenience if not allowed to turn on lights on retiring.

As to the other suggestion, it would require the presence of a Zone policeman or watchman to enforce same. It is to be deplored to be sure, that orgies are sometimes indulged in by a coterie of friends, such practice being, I am sure, against the existing rules of the Commission, and such ought to be reported at once to the Department of Labor, Quarters and Subsistence. The habitual drinking of some of the men make it also very disagreeable for their roommates especially, but such a practice, in my estimation, can not be regulated or stopped, by whatever means the officials may employ. Those of us who suffer from such condition of affairs should use tact and judgment in remonstrating with the offenders in a kindly manner and persuade them of their wrongs, which do not affect their comrades only, but themselves, injuring their health and placing them in an unfavorable light, even in contempt before their fellow employes.

We all can have a good time without the drug, and the only remedy for those, who disregarding all propriety and decency, keep up indulging in it, is that they should be ostracized. We are somewhat inclined to refrain from lecturing them as to their vile habits, for, after all, are they not good fellows and fine boys? Of course they are when sober. I do not believe in abstinence, but in temperance, and any I. C. C. or P. R. R. employe, whether he be a mechanic, trainman, or clerk, ought to be imbued with enough sense of pride and honor, knowing that he is given an opportunity to take his part in the greatest achievement of the twentieth century, not to do anything of which he would be ashamed if in the presence of any member of the Canal Commission, or of the wives and daughters who are sharing that honor with their husbands and fathers on the Isthmus. Persuasion goes a long ways further than coercion.

EMPLOYE.

Culebra, C. Z., Jan. 16.

Vegetarian Approbation.

THE CANAL RECORD:

The letter headed with the words "Two Suggestions" in issue No. 20 of THE CANAL RECORD is a move in the right direction. Let us hope it will be followed in the same spirit by other letters on the same and other vital subjects. I know of bachelor quarters where the employes are very quiet; some are busy every evening working on lessons for some correspondence school.

Again, a friend told me of visiting bachelor quarters where six or eight of the occupants were "laid out" and empty bottles lay scattered over the floor. From my point of view, starting from a fundamental basis, it would be a national movement to teach the employes how and what to eat. They will then soon learn how to live, do better work, and enjoy life. As it is the worker eats too much meat; not any, would be better.

Nature provides a thousand and one different grains, legumes, fruits, etc., which are cheaper, healthier, and more satisfactory than meat as a diet. An excerpt from *Munsey's Magazine*, current number, by Bernard Shaw may not be amiss here: "If people are cannibal enough in their taste to want to eat the corpses of slaughtered animals and to excite their nerves with injurious products of fermentation," he freely says, "I shall not prevent them from committing such atrocities, but you can not expect me to share in their tastes."

I will now ask, have you ever experienced the satisfaction of eating a meal in a first class vegetarian restaurant? and will close with the suggestion, that the "Good Colonel" having exterminated the "bane of the tropics" now turn his attention toward the improvement of the human race, beginning with the I. C. C. employes.

ANOTHER ISTHMIAN EMPLOYE.

Empire, C. Z., Jan. 17.

Wrath in Paraiso.

THE CANAL RECORD.

Will you kindly publish the following in the next issue of THE CANAL RECORD, that the idea may be dispelled that the bachelor population of Paraiso consists of inebriates and rowdies, as THE CANAL RECORD of the 15th published a letter entitled "Two Suggestions" by an "Employe," which would lead the English-speaking people of the Zone to believe that such was the fact.

I have been a resident of Paraiso for eight months and put myself on record as not having seen a drunken or disorderly person in said station in all that time, and of the noise that "Employe" complains of, I will say that it is only the natural exhilaration which is bound to present itself where entire satisfaction and good will exists. If the duties of said employe be so arduous that it is necessary for him to retire with the chickens that he may recuperate his energies for the morrow, I believe that it would be policy for him to migrate to some other climate, as he certainly can not be in perfect health. Maybe the tropical sun has shattered his nervous system. As for one of the suggestions relative to canteen, I will say that no worse condition could be brought about. Paraiso at present and for some time past has had no place which dispensed liquors, and the conditions in and about said station may be equaled but not excelled anywhere on the Isthmus.

As for taps or curfew, I will say that the majority of us are more than twenty-one years of age, and have been severed from our mother's apron strings a sufficient length of time to know when we wish to retire. I believe I am expressing the sentiments of fully 98 per cent. of the residents of Paraiso.

ANDREW H. BEARUP,
Locomotive Engineer.

Paraiso, Jan. 18.

Church Organization at Las Cascadas.

For some months efforts have been made to carry on religious work in the growing community of Las Cascadas. A Sunday school, with Mr. F. W. Leydeker as superintendent, has a good attendance. On Sunday evening, January 12, Chaplain Pearn conducted service, and at its close a plan to carry on the work more effectively was laid before the audience, which represented all denominations in the town, with the result that a community church organization was formed, composed of the following: Mr. F. W. Talbot, chairman; Mr. F. W. Leydeker, secretary and treasurer; Mrs. J. E. Albrecht, Mrs. W. D. Drepdale, Mrs. F. L. Crosby, Mr. J. E. Albrecht and Chaplain Pearn, executive committee. The committee desires to hear from the ministers resident on the Isthmus as to whether they can assist in the work by preaching on Sunday evenings.

American Farms in the Zone.

THE CANAL RECORD:

Learning through your columns that there are several thousand acres of Zone land belonging to the United States, and believing that much of this land, as will not be required for the construction of the Canal, would support a considerable agricultural population, I would like to voice through THE CANAL RECORD the following plan:

That the Commission, after receiving a proper authorization from Congress, divide this land into small tracts, say of 20 and 10 acres. After two years continuous and satisfactory service each American employe of the Commission would be entitled to 20 acres of this land and 10 additional acres for each additional year of service over two years. The title to this land to be given, first, at the termination of such length of service of any American through injury received in the line of duty; second, to all others on the completion of the Canal.

This would form a permanent agricultural population in the Zone, which would be a source of protection for the Canal. A clause in the deed to such land could read that the holder of same would be subject, at 24 hours' notice, to the call of the officials of the Canal, to defend it in time of war or to render assistance in case of accident.

With ships from all parts of the world passing through the Canal, a ready market could be expected for fresh fruit, vegetables, chickens, eggs, and meat, and for manufactured products, transportation to any market on the globe would almost be assured. There are several industries akin to agriculture that should flourish here, such as the extraction of palm oil, the distillation of rum, and the preserving of such native fruits as the guava and the mango.

Many employes from the north after several years' work in the Zone dread to undergo the rigors of the northern winter and would be glad to settle here were they surrounded by an American population. Sooner or later, after the completion of the Canal, permanent title will have to be given to land in the Zone. Do not readers of THE CANAL RECORD believe that this scheme of deeding the land to the diggers of the Canal is better than allowing it to fall into the hands of greedy land sharks who will flock here when the true value of Zone land is known? Were I not afraid of monopolizing too much space, I could bring forth many more reasons in support of this plan.

J. C. KIERNAN.

Cristobal, Jan. 16.

TAFT ON CANAL WORK.

The Secretary of War before the Senate Committee.

(ASSOCIATED PRESS REPORT.)

Washington, Jan. 16.—Secretary Taft appeared before the Senate Committee on Inter-Oceanic Canals to-day and gave information concerning the project and to offer suggestions for legislation. He expressed the opinion that the Canal should be completed within six years from next July, and that its ultimate cost would be approximately $300 000.000, including the purchase price. The proposed widening of the locks was carefully explained by Secretary Taft. He asserted that with the locks widened to 110 feet, a steamer of 108 feet beam could easily pass through. The largest ship this government is planning to build will have a beam of but 95 feet. The increased cost of the locks, Mr Taft estimated, would be about $5,000,000.

In his talk to the committee, Secretary Taft at various points brought out the difficulties that beset the Commission in its administration. He spoke of the complaints by the Panamanians that there is a bad odor to the water that is served to them through the new works at Panama, as one of the small yet annoying features of the work.

He gave out considerable information concerning prices paid for labor on the Canal, and urged that there be no reduction in the wages paid to skilled laborers, in spite of the fact that according to his estimate they were receiving in pay and privileges from 50 to 60 per cent. higher income than they could earn in the United States. Secretary Taft gave it as his opinion that any reduction at all would cause serious labor difficulties. Even with skilled labor wages at the present standard, he said, there was recently a strike upon the refusal of the Commission to increase the wages, and a force of men sufficient to run sixty-five steam shovels was depleted to a force sufficient to run only thirteen.

Senator Flint put a number of questions to the Secretary as to land controversies on the Isthmus, the cost of sanitation and the advisability of the Government running the Hotel Tivoli. In connection with the last named project, the Secretary thought it quite necessary for the Government to operate the hotel. He said with a smile that its bar had been removed, and that there ought to be no further complaint from the native business people, at least in respect to that trade. The Government had adopted the policy of acting on the advice of the doctors in all cases of sanitation as they did not care to assume the responsibility of acting contrary to the views of the doctors.

"More than that," he said, "Dr. Gorgas has proved so uniformly successful that we have felt justified in taking his advice in such matters."

He declared that it is not so unhealthful to live in the tropics as it was formerly. "The Spanish war taught us and all the world a great deal about how to live in the tropics," he said.

Mr. Taft in reply to inquiries said the Commission had found that the price placed upon lands needed for the Canal is excessive and has had no relation to its value for private purposes. That had not delayed construction work however, because the land is taken and paid for afterward.

The Government of Panama had offered to give the United States a site for a legation building at Panama, near the new Government building now being erected by the Republic. He thought it would be advisable to provide a legation building that would properly maintain the dignity of the United States in the future when the Canal has been completed.

Senator Flint wanted to know if this Government could not, with advantage, sell all the land now owned by the Panama Railroad Company in Panama, and not actually used for railroad purposes, in order to relieve the Government of owning property there that is used for improper purposes. Mr. Taft thought some of the land could be sold, and added that all the new leases provide that the premises shall not be used for immoral purposes, including the use as saloons. Much of this land would be needed in the future for the railroad.

Senator Kittredge asked Mr. Taft whether he had any recommendation for new legislation for the Canal Zone. The Secretary replied that he thought there should be an appeal from the courts of the Zone to the Supreme Court of the United States, but with that exception he had no recommendations to make. After the construction of the Canal has been completed, he thought there should be a comprehensive form of Government devised for the Zone, but he saw no reason for that now.

"This year has satisfied me," said Mr. Taft, "that a contract for doing the work on the Panama Canal is impracticable."

He added that any firm able to supply the large amount of money needed to carry on the work would demand such a large profit as to make it inadvisable to enter upon it.

An "Odorous" Comparison.

[From Engineering News, Dec. 16.]

What Dogberry would call an "odorous" comparison has been circulating recently through the daily press in regard to the excavation of the new Western Pacific Railway through the foothills of the Sierra Nevada mountains, and the excavation on the Panama Canal. The following extract from the New York *Times* will serve for an illustration:

> Mr. George J. Gould congratulates the officials of the Western Pacific Railway because with 8,000 men they have moved more earth and rock than the Panama Commission with a force of 30,000 laborers. The Western Pacific record for the first eleven months of the year was 11,471,300 cubic yards, more than half of which was rock, as compared with the 8,151,645 yards, chiefly of dirt, removed in the same period by the Panama Commission; and in addition to this three miles of tunnels were driven, 200 miles of main-line track were built and ballasted, and immense quantities of stone masonry, steel bridges, and other construction works were erected.

As this comparison is being made use of as proof of the inefficiency of Government administration on the Isthmus, it is proper that attention should be called to the many inaccuracies in the comparison.

In the first place the conditions of working are so widely different on the two enterprises that no fair comparison can be made. On the one hand a railway line is being built by experienced and efficient railway labor through a semi-arid healthful country, in easy reach of a base of supplies, and with short hauls from cut to fill; on the other hand a wide and deep ship canal is being dug in the most part by inexperienced, untrained tropical laborers, far from a home base, through a tropical country with an enormous rainfall, where conditions of climate are particularly enervating, and where the hauls often reach as high as ten miles.

But aside from all this, the above newspaper statement of work on the Isthmus is far below the actual excavation. According to THE CANAL RECORD for Dec. 4, 1907, the official record of excavation during the eleven months from January through to November, 1907, is as follows: Total steam shovel excavation, 9.550.479 cubic yards; total dredging, 4,006,254 cubic yards; grand total, 13,556,733 cubic yards.

Of this, 9,550,479 cubic yards of steam shovel excavation, 8,151,645 cubic yards, or the amount accredited in these newspaper articles to the entire Canal, was excavated in the Culebra Cut, and instead of being "chiefly dirt" it was, according to official statements, 58 per cent. rock.

There were working on the Culebra Division during the fiscal year 1906-07 an average of 4,684 men, and allowing an increase to 5.000 men for the five months, July to November, the 8,151,645 cubic yards of hard material, 58 per cent. rock, is not a bad showing in comparison with the 11,471,300 cubic yards excavated by 8,000 men on the Western Pacific Railway.

Again, instead of the "30,000 men" reported above, there were in June, 1907, 23,327 men employed by the Government in the entire Canal Zone, according to the annual report of the Canal Commission, and the average for the year was much below this. Of these men over 2,000 were employed in the Department of Sanitation and nearly as many in the Department of Labor and Subsistence, leaving less than 19,000 as the force in construction and engineering work for the entire Isthmus.

It may be noted also that only now, at the close of the year, is the working plant—steam shovels, cars and locomotives—on the Isthmus reaching a point where full capacity can be expected, as is evidenced by the rapidly growing rate of excavation, reaching 2,200,539 cubic yards in December as noted in our last issue.

As we have said above, comparison of total excavation on the two pieces of work is comparing things so dissimilar that no deductions whatever are justified. The newspapers are censurable for misleading their readers with figures far from the truth and comparisons which appear plausible enough to a layman, but which any engineer knows to be unreliable and misleading. Still more are they censurable when they build political argument on such weak foundation, as for example the New York *Times*, which says:

> But for the contrast it affords with an expensive and much-heralded public work this record of private accomplishment and economy might pass unregarded. It furnishes a gage by which Mr. Bryan and the other advocates of Government ownership of railroads, and their hearers, may measure the merits of that plan.

It seems a pity to weaken the case against Government ownership by such ill-founded arguments.

The following steamers have recently sailed from La Boca: *Peru*, January 19, for San Francisco with 2,300 tons of general cargo. The *Limari*, January 18; *Tucapel*, January 23; and *Guatemala*, January 24, for Valparaiso with a total of 4,600 tons of general cargo.

SOCIAL LIFE OF THE ZONE.

"Club Ethics" in the Canal Zone Organizations.

At the regular meeting of the Cristobal Woman's Club on January 22, a paper was read on "Club Ethics," written by Dr. Jeanne de la Lozier, of the New York State Federation of Woman's Clubs, which has also been read before several other Zone organizations. It is filled with suggestions and hints for the development of the ideal club life which are most helpful and greatly appreciated in the Zone where the club movement is of so recent date.

The Gatun club will hold a special meeting February 1, with Miss Anna Gohrman as guest. Miss Gohrman will address the club on school work and the desirability of cooperation of parents with the work of the teachers. The regular meeting will take place as usual.

The regular meeting of the Pedro Miguel club, January 22, was in charge of the literary committee. An amusing program was presented consisting of a short play which represented the closing day of an old-fashioned country school. The club spares no pains to make these entertainments interesting. An active member of the organization, Mrs E. Tobey, left for the States January 22 for an indefinite time.

The president of the Ancon club has called a special business meeting for January 29, at 8:30 a. m. Arrangements for the flower dance to be given by the club on February 29, are going rapidly forward and are in the hands of the following committee: Mrs. E. F. Quimby, chairman; Mrs. Noble, Mrs. Merritt, Mrs. Bennett, Mrs. Andrews, Mrs. Carpenter and Mrs. Jewett. Subscription tickets, admitting two persons, are for sale. These may be had at the Hotel Tivoli upon application to Mrs. Merritt , from the chairman of the committee, Mrs. E. F. Quimby of Corozal, or other members of the committee.

The art section of the Ancon Woman's Club, organized under the title of the Ancon Art Society, will hold its first monthly meeting on the evening of January 29, at the residence of Mrs. Herbert G. Squiers, the American Legation, Panama, from eight to ten o'clock. In accordance with the regular plan of the society, the evening will consist of music given during the hour's sketching; an exhibit and judgment of work by the critic appointed by the society, and a social half hour during which refreshments will be served. The program of work during the month of January has been figure, landscape, still life genre and applied design.

Madame LePrince of Ancon was guest of honor at the meeting of the Gorgona club, January 22.

The Las Cascadas club held its regular weekly meeting with good attendance January 22.

An error in last week's issue of THE CANAL RECORD gave Mrs. William Brown as guest of the Culebra club; it was Mrs. Thomas E. Brown of Cristobal who addressed the meeting on settlement work in New York.

The official visit of the Rt Rev. Edward William Osborne, D. D., of Springfield, Ill., was the feature of interest in church circles in January. The Bishop arrived January 14 en route to Trinidad, and during his stay was the guest of Rev. Henry B. Bryan, Archdeacon of Panama, at the Hotel Tivoli. At the request of the Archdeacon, six confirmation services were held, one each at Ancon, Gorgona, Culebra. Panama, Bas Obispo, and Colon. In all, eight classes were presented, the total number confirmed being one hundred and sixteen. Large congregations attended all the services. During his brief stay on the Isthmus, Bishop Osborne received much attention from the people in the Canal Zone and Panama One of the features of his visit was the inspection of the Culebra Cut in the company of Commission officials on January 20. He left on January 21 for Trinidad. Archdeacon Bryan will leave for a short visit to the States early in February, returning to his charge at the end of the month.

The Altar Guild of St. Luke's which has now over twenty members met at the residence of Mrs. John L Phillips January 20. The work of the guild is progressing, the first altar set for the chapel being completed. The next meeting will be held February 3 at the residence of Mrs. W. C. Gorgas.

A small brown leather bag has been left in the vestry room at the chapel evidently the property of a member of the congregation. The owner may reclaim same by writing to Miss Beattie, Corozal, C. Z.

The Paraiso Woman's Club held a social meeting January 23, at the club rooms in the Commission hotel. Several musical numbers were given and an advertisement guessing contest was a feature of the entertainment. Prizes were awarded to the correct guessers. Tea was served by the committee on entertainment. The attendance was the largest since the organization of the club.

A meeting was held at St. Luke's church (Protestant chapel), Ancon hospital, immediately after morning service on January 26 to discuss the question of the site for the new chapel to be built by the Commission. A committee was selected, consisting of Archdeacon Bryan, chairman; Col. W. C. Gorgas, Dr. H. R. Carter, Judge S. E. Blackburn and Messrs. Tom. M. Cooke and H. D. Reed, which will look over the various sites proposed and make a report, when definite action in selecting a site will be taken.

PERSONAL.

Capt. George Van Orden, U. S. Marine Corps, accompanied by his wife and family, was a passenger on the *Colon*, which arrived at Cristobal on January 26. Capt. and Mrs. Van Orden will be stationed at Camp Elliott.

Staff Captain and Mrs Simons of the Salvation Army, stationed at Colon, will leave for New York early in February, and the head of the work on the Isthmus will be Major Galley, who is expected to arrive next week. Lieut.-Col. Maidment of the South American force will arrive early in February to take charge of the work in the West Indies, with headquarters at Jamaica. He will be a frequent visitor to the Isthmus and have particular charge of the movement here.

If P. A. Gasque, formerly of Marion, South Carolina, will communicate with the undersigned, at Colon Hospital, he will learn something to his advantage.

DR. J. G. EVANS.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

REPORT FOR DECEMBER, 1907.

Total membership	1,637
Total number bowling games	5,4[illegible]8
Average per day	212
Total number of pool and billiard games	12,721
Average per day	497
Total income from soda fountains	$1,361.75
Average per day	43 92
Number of different men using gym'sium	301
Number enrolled in chess and checker cl'bs	92
Number enrolled in glee clubs	26
Number enrolled in dramatic and minstrel clubs	70
Number enrolled in debating clubs	25
Number enrolled in camera club	6
Number enrolled in orchestra club	16
Number enrolled in Bible clubs	36
Number enrolled in wireless teleg. class	6
Number enrolled in Spanish classes	88
Number enrolled in arithmetic class	5
Number enrolled in mechanical drawing classes	16
Number enrolled in English gram'r class	4
Number of members of library	373
Number of books withdrawn	1,063
Number of Sunday meetings	12
Average attendance	67
Number of imported entertainments	6
Average attendance	254
Number of local entertainments	6
Average attendance	311
Number of functions outside of Association management	10
Average attendance	137
Number of afternoons for women	28
Average attendance	20
Number of evening functions to which women were invited	25
Average attendance of women	40
Number of committees	29
Different men on committees	153
Number of letters written at public tables	5,2[illegible]5
Average per day	170
Total attendance at buildings exclusive of functions by outside clubs	24,725
Average attendance per day	798

CRISTOBAL.

The Culebra and Cristobal teams of the Isthmian Y. M. C. A. basket-ball league played their first game on Saturday evening, January 18. Both teams showed lack of practice. The score was 47 to 11, in favor of Cristobal. Robert G. Goodman of Culebra, refereed the game.

The local bowling tournament opened on Thursday evening, January 23, between teams A and B. Team A won the first two games, and the third was a tie. At the last session of the senate of the Cristobal Y. M. C. A., Mr. McAdams, chairman of the committee on ways and means, was tried on the charge of contempt of the senate. After a very interesting trial he was acquitted. The senate meets every Thursday evening. All visitors are welcome.

Mr. William H. Baxley, secretary of the Culebra Y. M. C. A., made an address to the Sunday Club on the afternoon of January 26. A special feature of the meeting was the general singing by all present, for about twenty minutes before the address.

Concert.

By the I. C. C. Band at Paraiso, C. Z., Sunday, February 2, 1908, at 2:30 p. m.:

PROGRAM:

1	March	*Up the Street*	Morse
2	Selection	*George Washington, jr.*	Coban
3	Waltz	*Symposia*	Bendix
4	a Two step	*Honey Boy*	Von Tilzer
	b Intermezzo	*Starland*	O'Connor
5	Moreeau characteristic	*The Chirpers*	Frank
6	Piccolo solo	*Canary Polka*	Read
	OLIVER KIMBALL		
7	Mazurka	*La Czarine*	Ganni
8	Overture.	*Sunlight and Showers*	Blath
9	Patrol	*The Blue and Grey*	Dalbey
10	March	*Honor Bound*	Boehnlein

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Culebra, February 9

THE CANAL RECORD:

Mr. and Mrs. J. A. Shoughnessey of Empire were agreeably surprised on Wednesday evening, January 15, by a visit from a number of Mr. Shoughnessey's shop mates. As it was the first anniversary of Mr. and Mrs. Shoughnessey's wedding, a pretty china tea set was presented to them, and every body spent a very pleasant evening.

G. E. GUSTAVSON

Empire, Jan. 19.

IMPORTATIONS BY EMPLOYES.

Special Authority Necessary to Secure Reduced Rates.

TO OFFICIALS AND EMPLOYES:

Referring to the subject of the importation by employes of shipments from the United States at the employes' reduced freight rate and entry at Colon free of customs duty.

Many employes seem not to be informed of the fact that special authority is necessary to receive these privileges, and that a special form has been provided for their convenience, namely, form No. 120 C. E. This form, on which will be found full instructions, is supplied to the various Commission offices by the stationer and printer on regular requisition, and is furnished free to employes on request.

In the future this special authority must be requested before the shipment is ordered from the States, or no reduced freight rate will be granted, and the employe will be required to pay full tariff rates and be subject to liability of having his shipment held up by the customs officials at Colon.

Respectfully,

D. D. GAILLARD,
Acting Chairman
and Chief Engineer.

Culebra, Jan. 21.

OFFICIALS AND EMPLOYES:

Referring to circular letter of January 21, 1908, relative to the subject of the importation by employes of shipments from the United States at the employes' reduced freight rate and entry at Colon free of customs duty.

Under a new arrangement with the Government of Panama which slightly modifies the previous method of handling these requests, five copies are now required instead of four. Accordingly, it will be necessary to submit requests in quintuplicate instead of in quadruplicate, as heretofore.

(Sgd.) D. D. GAILLARD,
Acting Chairman,
and Chief Engineer.

Culebra, C. Z., Jan. 27, 1908.

Unclaimed Packages.

The following is a list of packages that have been forwarded from New York to Isthmian Canal Commission and Panama railroad employes, and that are waiting to be claimed at the freight house at Colon. Applications of claimants should be made through the freight agent, P. E. Cruchley. The owners of these packages will have to make application for free customs entry in connection with Circular No. 85 (printed above), or in the alternative, pay duty to the Panama Government customs on the value of the contents of the packages, before delivery can be effected:

	Charges to collect
Way-bill No. 122—John Burke, Colon, 1 case canvas tent ex *Panama* Sept 24, 1907	$ 3.00
Way-bill No. 146—Inocencio Galindo, Ancon 1 tierce tinware, ex *Advance*; Dec. 9, 1907	3.00
Way-bill No. 153—Inocencio Galindo, Ancon, 1 barrel lamps, ex *Finance*, Dec. 26, 1907	3.00
Way-bill No. 148—J. J. Jackson, Cristobal, 1 barrel dinner set, ex *Panama*, Dec. 15, 1907	3.00
Way-bill No. 150—G Alfoe, Empire, 1 box dry goods, ex *Dunottar Castle*, Dec. 21, 1907	3.92
Way-bill No. 153—Geo Alfoe, Empire, 1 box, hammocks, ex *Finance*, Dec. 26, 1907	2.25
Way-bill No. 162—Russell Hall, (or Hull), 1 crate, ex *Panama*, January 10, 1908	3.25
Way-bill No. 153—R. A. Corbett, Colon, 1 box, ex *Finance*, Dec. 26, 1907	3.00
Way-bill 159—J. D. Alexander, Pedro Miguel, 1 case sewing machine, ex *Advance*, Jan. 6, 1908	3.00
Way-bill No. 142—H. Dyer, Gatun, 1 box dry goods ex *Finance*, Nov. 29, 1907	4.32
Way-bill No. 111—S G. M., Cristobal, 1 box hardware, ex *Advance*, Aug. 25, 1907	1 00
Way-bill No. 146—M C. Benson, Bas Obispo, 1 crate machine, ex *Advance*, Dec. 9, 1907	3.00
Way-bill No. 101—H. W. Otis, Colon (or Gorgona) 1 barrel notions, ex *Panama* Aug 2, 1907	3.00
Way-bill No. 153—Fred. Meister, Paraiso, 6 packages H. H goods, ex *Finance*, Dec. 26, 1907	13.30
Way-bill No. 162—W. O. Patterson, Colon, 1 package, ex *Panama*, Jan. 10, 1908	1.00
Way-bill No. 162—T. B Knox, Panama, 1 case shoes, ex *Panama*, Jan 10, 1908	5.00
Way-bill No. 156—L. A. Morin, Colon, 1 package, ex *Colon*, Dec. 30, 1907	3 00
Way-bill No. 153—Manuel Diez, Panama, package, ex *Finance*, Dec. 26, 1907	1.00
Way-bill No. 159—Jno. H. Guinther, 1 piece canvas, ex *Advance*, Jan. 6, 1908	1 00
Way-bill No. 162—J. P. Randall, M. D., Ancon, 1 case and 1 package, ex *Panama*, Jan. 10, 1908	2.00
Way-bill No. 153—H. T. Yierman, Gorgona, 1 package, ex *Finance*, Dec. 26, 1907	1.00
Way-bill 156—Dr. J. C. Terry, Ancon, 1 package, ex *Colon*, Dec. 30, 1907	1.00
Way-bill No. 153—G. H Beldon, Cristobal, 1 package books, ex *Finance*, Dec. 26, 1907	3 25
Way-bill No. 148—Ed W. Jackson, Matachin, 1 package, ex *Panama*, Dec. 15, 1907	3.00
Way-bill No. 159—Justice Lorin C. Collins, Cristobal, 1 case P. ware, ex *Advance*, Jan. 6, 1908	3.00
Way-bill No. 89—J. H. Higgins, Cristobal, 2 cases picture machinery, ex *Colon*, June 29, 1907	3.00
Way-bill No 126—Thos. A. Morant, Cristobal, 1 box false jewelry, ex *Colon*, Oct. 10, 1907	3.00
Way-bill No 159—Samuel Nathan, San Pablo, 1 box nut butter, ex *Advance*, Jan. 6, 1908	1.75
Way-bill No. 150—R Le Byrd, Culebra, 1 box ex *Dunottar Castle*, Dec. 21, 1907	1.00
Way-bill No 156—Miss Genevieve Russell, Ancon hospital, 2 cases personal effects, ex *Colon*, Dec 30, 1907	3.00
Way-bill No 156—W W. Hall, Las Cascadas, 1 box hardware, ex *Colon*, Dec. 30, 1907	1.00
Way-bill No. 162—E Arosemena, Panama, 2 packages lawn swings, etc, ex *Panama*, Jan 10, 1908	4.00
Way-bill No 150—Wm Gerow, Culebra, 1 box effects, ex *Dunottar Castle*, Dec. 21, 1907	3 00
Way-bill No. 148—Frank Loylan, Culebra, 1 box, ex *Panama*, Dec 15, 1907	4.84
Way-bill No. 150—H. A Jacobs, Culebra, 1 box picture frames, ex *Dunottar Castle*, Dec 21, 1907	3.00
Way-bill No 165—Geo M Campey, Las Cascadas, 1 case bitters, ex *Dunottar Castle*, Jan 15, 1908	prepaid
Way-bill No 165—Raf. Dominguez, Cristobal, 1 package, ex *Dunottar Castle*, Jan. 15, 1908	1.00
Way-bill No 165—W. J Ewen, Gorgona, 1 case notions, *Dunottar Castle*, Jan. 15, 1908	4 25
Way-bill No 165—C. E. Griffin, Empire, 1 box notions, ex *Dunottar Castle*, Jan 15, 1 08	3.00
Way-bill No. 165—Joseph N. Hinds, Empire, 1 box, ex *Dunottar Castle*, Jan. 15, 1908	1.00
Way-bill No. 165—J. L. Kerr, Cristobal, 3 boxes clocks, ex *Dunottar Castle*, Jan 15, 1908	3.00
Way-bill No. 165—Jas. Vaugher, Culebra, 1 box ex *Dunottar Castle*, Jan. 15, 1908	1.00
Way-bill No. 165—V. Washbaugh, Las Cascadas, 1 box notions, ex *Dunottar Castle*, Jan. 15, 1908	3.00

No. 7,381—Frank F. Staley, Empire, 1 parcel ex *Dunottar Castle*, Dec. 21, 1907, prepaid

No. 7,418—E. Richard Stahl, Empire, 1 parcel, ex *Advance*, Jan. 6, 1908, prepaid.

No. 7,410—Arthur R. Richards, Culebra, 1 parcel, ex *Advance*, Jan. 6, 1908, prepaid.

No. 7,421—B. C. Davis, Colon, 1 parcel, ex *Panama*, Jan. 10, 1908, prepaid.

No. 7,232—J. W. Foulks, Colon, 1 parcel, ex *Dunottar Castle*, Sept. 30, 1907, prepaid.

No. 7,275—Mrs. A. Herman, Cristobal, 1 parcel, ex *Finance*, Nov. 1, 1907, prepaid.

No. 7,321—J. M. Chumacero, Colon, 1 parcel, ex *Dunottar Castle*, Nov. 24, 1907, prepaid.

No. 7,158—Dr. J. P. Leyes, Colon, 1 parcel, ex *Colon*, Aug. 18, 1907, prepaid.

No. 7,216—Victor E. Lopez, Colon, 1 parcel, ex *Panama*, Sept. 24, 1907, prepaid.

No. 7,385—Maj. J. H. Russell, Bas Obispo, 1 parcel, ex *Advance*, Jan. 6, 1908, prepaid.

No. 7,343—J. G. Barratt, Bas Obispo, 1 parcel, ex *Advance*, Dec 9, 1907, prepaid.

No. 7,390—Pablo Pinel, Colon, 1 parcel ex *Finance*, Dec. 26, 1907, prepaid.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending January 22:

FRESH MEATS.		Price cts
Beef, sirloin, roast	*per lb...*	*25*
Beef, rump, roast	*do*	*25*
Beef, porterhouse	*do*	*25*
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	*18*
Beef, rib-roast, second-cut	*do*	*15*
Beef, chuck-roast	*do*	*12*
Beef, soup	*do*	*6*
Beef, stew	*do*	*10*
Beef, corned	*do*	*10, 12* *14*
Beef, suet	*do*	*6*
Steaks, sirloin	*do*	*25*
Steaks, porterhouse	*do*	*25*
Steaks, rump	*do*	*25*
Steaks, tenderloin	*do*	*25*
Steaks, round	*do*	*14*
Veal, cutlets	*do*	*21*
Veal, short-cut chops	*do*	*20*
Veal, loin	*do*	*13*
Veal, entire forequarters	*do*	*9*
Veal, for stewing	*do*	*9*
Mutton, entire forequarters	*do*	*9*
Mutton, short-cut chops	*do*	*18*
Mutton, leg	*do*	*14*
Lamb, for stewing	*do*	*10*
Lamb, entire forequarters	*do*	*10*
Lamb, chops	*do*	*28*
Lamb, legs	*do*	*18*
Pork, cuts	*do*	*20*
MISCELLANEOUS.		
Livers, beef	*per lb...*	*9*
Livers, calf	*each...*	*60*
Sausage, pork	*per lb...*	*16*
Sausage, Bologna	*do*	*15*
Sweet bread, veal	*each...*	*1.20*
Sweet bread, beef	*per lb...*	*25*
Tripe, pickled, Honeycomb	*do*	*12*
Oysters, ½-gallon kegs	*each...*	*70*
Oysters, 1-qt. tins, square	*do*	*45*
Pigs' tongues	*per lb...*	*12*
Pigs' feet	*do*	*8*
Ox tongues	*each...*	*90*
POULTRY AND GAME.		
Chickens, dressed (milk-fed)	*each...*	*1.15*
Fowls	*do*	*90*
Ducks, fatted	*do*	*1 65*
Turkeys (12 to 18 lbs)	*per lb..*	*26½*
Broilers, (chicken frys)	*each...*	**65*
Squabs	*do*	*35*
Eggs, fresh	*per dozen*	*45*
CURED MEATS AND LARD		
Bacon, strips	*per lb...*	*23*
Bacon, English breakfast, slic'd	*do*	*§26*
Ham, sugar-cured, sliced	*do*	*§25*
Ham, one-half (for boiling)	*do*	*§20*
Ham, Yorkshire (imported)	*do*	*25*
Ham, Westphalia	*do*	*4[illegible]*
DAIRY PRODUCTS.		
Butter, prints, prime quality	*per lb..*	*40*
Cheese, cream, Phila.	*each*	*22*
Cheese, Neufchatel	*do*	*6*
Cheese, Roquefort.	*per lb...*	*45*
Cheese, Young America	*do*	*22*
Cheese, Swiss	*per lb...*	*30*
Cheese, Gouda	*do*	*30*
Cheese Camembert	*each...*	*28*
Cheese, Edam	*each..*	*90*
Milk	*quart*	*15*
FRUITS AND VEGETABLES.		
Pears	*per lb...*	*10*
Pineapples	*each...*	*20*
Limes	*per hun..*	*36*
Bananas	*per dozen*	*5*
Cranberries	*per lb...*	*10*
Grape Fruit	*each*	*2½*
Apples	*per lb...*	*5½*
Apples, fancy table	*per lb...*	*8*
Beets	*per lb..*	*5*
Oranges	*per dozen*	*10*
Tomatoes	*per lb...*	*10*
Grapes	*do*	*14*
Spinach	*per lb...*	*14*
Lettuce	*per lb..*	*14*
Celery	*bunch*	*18*
Cucumbers	*per lb...*	*28*
White potatoes	*do*	*2½*
Cabbage	*per lb...*	*2½*
Turnips, yellow and white	*do*	**2½*
Lemons	*dozen*	*25*
Onions	*per lb...*	*3½*
Cauliflower	*do*	**7*
Sauer kraut	*do*	*3½*
Parsnips	*do*	*6½*
Plantains	*dozen...*	*12*
Squash, summer	*do*	*5*
Carrots	*per lb...*	*4½*
Sweet Potatoes, American	*do*	*3*
Egg Plant	*per lb...*	*10*
Parsley	*do*	*20*
Yams	*do*	*2½*

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* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from Commissaries*

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
Capt George M. Hoffman, U. S. A., Assistant Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M Saville, Assistant Division Engineer, Gatun.
Sydney B. Williamson, Division Engineer, Corozal.
E. A. LeMay, Chief Clerk.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
R. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon
D. E. McDonald, Chief Clerk
C. E. Weidman, Chief, Fire Department, Cristobal
Charles F Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Jan. 29. 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Armiger, Chas.
Bailey, Robt
Beard, Mrs F. S.
Beal, R.
Bevington, Harry
Borg, H. J.
Bowley, A. C.
Boyle, Edw.
Brown, A. S., jr.
Brown, Chas.
Bryan, F. G.
Bryan, Uriah
Bucklin, E. W.
Burnham Anna M.
Calvert, Mrs. S.
Cameron, D.
Chattey, J. N.
Clegg, John
Corsoran, Tony
Crowley, D. E.
Cummings, L. D.
Dale, J.
Drake, Wm.
Dyes, I. W.
Fabiani, G.
Falkner, W. H.
Fenton, G. D.
Flaherty, M.
Gerson, J. M.
Golet, H.
Guynup, B. A.
Hanson, Ed.
Harrington, Ross
Hawks, J. A.
Hoffman, Capt. G. M.
Housan, W. A.
Howell, Miss Emma
Hutton, Sam
Kilbeck, Mr.
Krause, A., 2
Lee, Dr., U. S. N.
Lindsay, A S.
Logan, Mrs. A. C.
Lord, J. W.
Lynch & Co., F. A.
Mallas, Jos.
Mckay, A.
McLean, N.
McLaughlin, Mrs. W. J.
McMahon, T. J.
McNuake, Geo. M.
Meisner, G.
Murry, L.
Mahoney, J.
Mudgett, B. F.
Poore, W. C.
Rens, J. H.
Reisinger, F.
Robinson, C. W.
Shaffer, C. E.
Shaw, E. O V.
Shaw, B. C.
Shea, W. G.
Stevens, J. D.
Sturgis, R. E.
Sanchez, Jil F.
Tackerslie, F. E
White, H. J., 2
Willis, W.

PACKAGE.

Mackle, John

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Advance	*P.R.R.*	*Saturday*	*Jan. 25*
Sarnia	*H.-A.*	*Saturday*	*Jan. 25*
Magdalena	*R. M.*	*Saturday*	*Jan. 25*
Panama	*P.R.R.*	*Thursday*	*Jan. 30*
Prinz Aug. Wilhelm	*H.-A.*	*Saturday*	*Feb 1*
Allianca	*P.R.R.*	*Tuesday*	*Feb. 4*
Siberia	*H.-A.*	*Saturday*	*Feb. 8*
Atrato	*R.-M.*	*Saturday*	*Feb 8*
Finance	*P.R.R.*	*Monday*	*Feb. 10*
Colon	*P.R.R.*	*Saturday*	*Feb 15*
Prinz Joachim	*H.-A.*	*Saturday*	*Feb 15*
Advance	*P.R.R.*	*Thursday*	*Feb 20*
Sarnia	*H.-A.*	*Saturday*	*Feb. 22*
Trent	*R.-M.*	*Saturday*	*Feb 22*
Panama	*P.R.R.*	*Tuesday*	*Feb 25*
Prinz Aug. Wilhelm	*H.-A.*	*Saturday*	*Feb 29*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Atrato	*R.-M.*	*Wednesday*	*Jan. 29*
Colon	*P.R.R.*	*Sunday*	*Feb. 2*
Prinz Joachim	*H.-A.*	*Tuesday*	*Feb 4*
Advance	*P.R.R.*	*Friday*	*Feb 7*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Feb. 11*
Panama	*P.R.R.*	*Wednesday*	*Feb. 12*
Trent	*R.-M.*	*Wednesday*	*Feb. 12*
Allianca	*P.R.R.*	*Monday*	*Feb. 17*
Prinz Aug. Wilhelm	*H.-A.*	*Tuesday*	*Feb. 18*
Finance	*P.R.R.*	*Sunday*	*Feb 23*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Feb 25*
Oroya	*R.-M.*	*Wednesday.*	*Feb. 26*
Colon	*P.R.R.*	*Friday*	*Feb. 28*
Prinz Joachim	*H.-A.*	*Tuesday*	*Mch. 3*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Magdalena	*R. M.*	*Tuesday*	*Feb. 4*
Atrato	*R.M*	*Tuesday*	*Feb. 18*
Trent	*R.M.*	*Tuesday*	*Mch. 3*
Atrato	*R.-M.*	*Tuesday*	*Feb. 18*

The Panama railroad steamships sail at 3 p.m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Floridian*, about Feb. 10, and *Jamaican*, about Feb. 22.

The following steamers have recently arrived at La Boca from San Francisco: *Aztec*, January 18, with a cargo of 6,000 barrels of wine and 15,000 sacks of coffee. *Newport*, January 19, with 700 tons of general cargo. *Mackinaw*, January 20, with 5,000 barrels of wine and 10,000 sacks of coffee; and the *San Jose*, January 22, with 1,500 barrels of wine and 5,000 sacks of coffee. All of these cargoes are billed through to Atlantic ports.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, FEBRUARY 5, 1908. No. 23.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed by the full name and address of the writer.

NOTES OF PROGRESS.

Nearly Two and Three Quarter Millions.

The grand total of excavation during the month of January was 2,712,568 cubic yards. For the first time the two and one-half million mark was reached and passed, and the two and three-quarter million mark was nearly reached. The highest previous monthly total was that of December, 1907, when it was 2,200,539 cubic yards. The January total shows an increase of 512,029 cubic yards for the month. Of the 2,712,568 cubic yards excavated, 2,488,039 were taken from the Canal prism—1,583 386 by steam shovels and 904,653 by dredges.

There was a large increase in yardage in every division. In the Culebra Division the million cubic yard mark was again passed and another record established, the total excavation there during January being 1,150,334 cubic yards, an increase of 124,849 over the record for December, when the total was 1,025,485. The average number of steam shovels at work was about the same for both months.

From the Gatun locks and spillway, there were taken by steam shovels 292,155 cubic yards, an increase of 61,604 over the record for December. Work was started at the lock site at Miraflores, and 10,158 cubic yards were excavated there—7,203 from the Canal prism and 2,955 from accessory work.

Excavation by steam shovels in the Chagres Division amounted to 169,447 cubic yards, an increase of 70,795 for the month. At Mindi the steam shovel excavation amounted to 62,835 cubic yards, an increase of 15,890.

The total by dredges at all points was 950,951 cubic yards, of which 490,701 were in the Colon Dredging Division, an increase of 47,866, and 460,250 in the La Boca Dredging Division, an increase of 110,699.

On accessory work outside of the Canal prism 224,529 cubic yards were removed, 178,231 by steam shovels and 46,298 by dredges.

The detailed excavation for the month is appended:

Department of Excavation and Dredging.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Culebra Division.	1,150,334	76,688	1,227,022
Mindi......	62,835	....	62,835
Chagres Division	169,447	....	169,447
Total..........	1,382,616	76,688	1,459,304
Dredges—			
Colon Dredging Division..........	444,403	46,298	490,701
La Boca Dredgi'g Division..........	460,250	....	460,250
Total..........	904,653	46,298	950,951
Grand total.....	2,287,269	122,986	2,410,255

Department of Lock and Dam Construction.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Gatun locks........	193,567	....	193,567
Gatun spillway..	....	98,588	98,588
Miraflores locks.	7,203	2,955	10,158
Total.....	200,770	101,543	302,313

Total Excavation, Entire Canal.

How excavated.	In Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
By steam shov'ls	1,583,386	178,231	1,761,617
By dredges.........	904,653	46,298	950,951
Total..........	2,488,039	224,529	2,712,568

Mean rainfall along Canal (11 stations), 1.15 inches.

Figures of monthly excavation are based upon telephone reports from division engineers and are subject to slight alterations when official reports are received.

Steam Shovel Force and Work.

On January 1, 1908, there were 69 steam shovels owned by the Commission erected and ready for work and classified as follows:

Nine 45-ton, with buckets of a capacity ranging from 1½ to 1¾ cubic yards; 28, 70-ton, with buckets of from 2½ to 3 cubic yards, and 32, 95-ton, with buckets of 5 cubic yards. Of the entire 69 about 60 were at work at the beginning of the year. The average number of shovels at work during the year in the Culebra Division was 39, and the average yardage removed from the prism of the Canal each month during 1907 by steam shovels was 873,511 cubic yards.

Commissary Privileges.

The Isthmian Canal Commission at its 140th meeting held on January 30, 1908, received the report of the Committee appointed by the Chairman at the 138th meeting of the Commission to confer with the Panama merchants in reference to certain restrictions which they asked to have placed upon the privileges of the commissary now operated for the benefit of gold and silver employes of the Commission and the Panama railroad. After a thorough discussion of the matter the Commission was of the opinion that the progress of the work, its future success and the welfare of all classes of employes would be imperiled by any radical changes in the operation of the Commissaries.

Upon motion, it was therefore

Resolved, (1) That the demand for the restriction of Commissary privileges be declined.

(2) That the demand for the restoration of the bi-monthly pay day be declined, for the reasons previously stated and of record.

(3) That the demand for the discontinuance of the coupon books be declined.

(4) That all suggestions made by the Panama Committee in regard to safeguarding coupon books be adopted.

That the demand for coupon books to be made good in trade with Panama merchants be declined.

(5) That the demand that European importations be discontinued be complied with so far as consistent with good business judgment. If European goods are necessary for the convenience of employes they should be kept in stock and purchased to the best advantage.

Resolved further,

(*a*) That the Commissaries continue to carry in stock provisions, clothing, supplies, and other things necessary and convenient for officers, employes, workmen and laborers, in the service of the Commission and Panama railroad, and for their families.

That such provisions, clothing, supplies, and other things necessary and convenient, be classified as salable to those on the gold roll and those on the silver roll.

(*b*) That the sale of coupon books to employes on the gold roll be limited to 65 per cent. of their monthly salary and to those on the silver roll not to exceed $15 per month, gold.

(*c*) That a copy of this resolution be furnished the Committee representing the Panama merchants.

Abusing Commissary Privilege.

NOTICE TO EMPLOYES:

Notice is hereby given that any employe found to be furnishing supplies to outsiders,

NOTES OF PROGRESS.

(*Continued*)

thus abusing the commissary privilege will be immediately dismissed from the service.

D. D. GAILLARD,
Acting Chairman,
and Chief Engineer.

January 31, 1908.

New Fire Department Stations.

The construction and equipment of the the new Fire Department stations at Gorgona, Empire, Culebra and Tivoli hill, of which mention was made in THE CANAL RECORD of September 25, 1907, are now nearing completion. At Culebra, the old fire station used by volunteers has been remodeled for occupancy by the new paid department. The new building at Empire is practically completed, and the buildings at Tivoli hill and Gorgona will be completed within a week or ten days Each of these new stations will be equipped with a two-horse hose wagon carrying one thousand feet of hose, two chemical tanks and one 20-foot extension ladder. These ladders will be delivered on the Isthmus on or about February 19. Four paid firemen will be detailed to each of the new stations. Most of the additional men required are now on the Isthmus and the remainder are expected to arrive before the apparatus is installed. On January 24, thirteen new horses for the Fire Department were delivered at Cristobal. These horses were carefully selected for the service and are in excellent condition. They are now being tried out under the direction of the Chief of the Fire Department, and matched in teams. Work has been begun by the Mechanical Division on the fire alarm system at Ancon. Upon completion of this system similar systems will be installed immediately at Culebra, Empire and Gorgona.

Gatun Steam Shovel Work.

The maximum daily output of the six steam shovels working at the Gatun lock site for the week ending January 25 was made on Saturday, January 18, when 7,956 cubic yards, car measurement, were excavated being an average of 1,326 cubic yards per shovel per day. During the same period the three shovels at the spillway excavated a total of 25,404 cubic yards, car measurement, the largest daily output being on January 21, when 5,016 cubic yards were removed, an average of 1,672 cubic yards. Steam shovel No. 114 made the largest output for any one day during the week, loading 2,148 cubic yards on January 22, and the total output of this shovel for the six working days was 12,120 cubic yards, an average of 2,020 cubic yards per day.

Building Construction by Contract.

On January 8, 1908, contract was entered into with Herman Bolten for the construction by contract of two type No 14 quarters at Empire for $3,900, all labor to be furnished by the contractor and all material to be provided by the Commission. On January 10, 1908, contract was entered into with Messrs. Green and Wilson for the construction of two type No. 14, and one type No. 18 quarters at Ancon for $8,000, on the same basis. The contract was awarded to the lowest bidder after public advertisement. Rapid progress is being made on these buildings and they are nearly 50 per cent. completed at the present time.

Bids have also been received on the construction of three public markets at Pedro Miguel, Las Cascadas and Gatun, the lowest bidder being Herman Bolten, whose figure is $1,900, and a contract will be entered into with him for the same.

The future policy of the Commission as to continuing this method of building construction as a regular practice will depend upon the results obtained from these three contracts. It is the intention of the Commission to reduce the cost of buildings and if this result can not be obtained by constructing buildings by day's labor, an effort will be made to do so by contract.

Dredging at La Boca.

The maximum daily output by dredges in the La Boca Dredging Division for the week ending February 1, scow measurement, was as follows: January 31, dredge A-2, 7,043 cubic yards; January 28, dredge 14, 7,064 cubic yards; January 28, *Culebra*, 18,799 cubic yards. No work was done by dipper dredge as it is undergoing repairs. The total output of the three dredges for the same period was: Dredge A-2, 36,766 cubic yards; dredge 14, 39,103 cubic yards; *Culebra*, 77,625 cubic yards. The combined total for the week was 153,494 cubic yards.

Commission Action.

At a meeting of the Isthmian Canal Commission held January 30, 1908, the following resolutions were adopted:

Resolved, That the sum of $7.50 U.S. currency be paid from the Canal Zone contingent fund to each indigent prisoner discharged from the Canal Zone penitentiary for the purpose of clothing and to provide for his maintenance until he finds remunerative employment.

Resolved, That any leave of absence without pay, not exceeding 57 days in any service year, shall not affect the longevity increase provided for in the resolution adopted at the 131st meeting of the Commission. The Chairman shall in all cases decide whether the effective date of the longevity pay is to be delayed by the amount of time lost through leave of absence without pay in excess of 57 days in any service year.

Speed of Automobiles.

The following action was taken by the Isthmian Canal Commission at its meeting on January 30, 1908:

Under authority of paragraph 7 of the Executive Order of the President, dated March 13, 1907, wherein it is provided that ordinances regulating police, sanitation and taxation may be enacted by the Isthmian Canal Commission with the approval of the Secretary of War, it was

Resolved, That any person driving an automobile in the Canal Zone at a speed exceeding 15 miles an hour on straight roads, or at a speed exceeding 8 miles an hour when approaching curves, forks or cross-roads, shall be punished by a fine of not less than five dollars ($5) nor more than one hundred dollars ($100) United States currency, or by imprisonment for not more than thirty (30) days, or by both fine and imprisonment, at the discretion of the court. The owner of an automobile, if in the car, shall be held responsible for its speed; in the absence of the owner, the person actually driving the automobile shall be held responsible.

Cable Steamer "Guardian."

The cable repair steamer *Guardian* arrived in Panama bay on January 31 to repair the submarine telegraph cable which was damaged by the suction dredge *Culebra* on January 21. After making temporary repairs to restore communication she will relay shore-end sections of all cables in Panama bay so that they will be out of the way of the Canal dredges in the future.

The *Guardian* is a new steamer of 1,600 tons built last year at Newcastle-on-Tyne, England, for the Central and South American Telegraph Company of New York. This is her first cable repair work. She is 300 feet long, of 30 feet beam, and has twin screw engines of 4,000 horse-power capable of propelling her at the rate of 13 knots an hour. Her crew numbers fifty-five.

The equipment of the *Guardian* comprises some of the very latest types of machinery for the laying, lifting and repairing of submarine cables. Her cable tanks can carry six hundred knots of deep sea cable. She also has a large, powerful searchlight and ice and cold storage machinery, and can if necessary, remain at sea for four months on cable repair work, without the necessity of entering port, so large is her capacity for coal, provisions, etc.

January Rainfall for Three Years.

Station.	1906.	1907.	1908.	Av'ge since station estab'd.	No. of rainy days
Atlantic Slope					
Cristobal.......	1.43	2.47	3.84	3.99	17
Brazos Brook	....	2.06	4.30	3.13	18
Gatun...........	1.42	3.29	3.18	4.13	19
Bohio...........	.88	1.06	1.59	6.49	18
Tabernilla.....	....	....	.92	....	13
San Pablo......	....	....	.80	....	9
Central Sec.					
Bas Obispo...	1.03	.35	.20	1.08	8
Gamboa........	1.37	.28	.19	1.98	7
Empire..........	1.28	.08	.75	.70	7
Camacho.......	....	.10	1.70	.90	9
Culebra.........	1.19	.09	.91	1.89	4
Rio Grande...	.65	.02	.75	1.30	4
Pacific Slope					
Pedro Miguel	....	....	.01	....	1
La Boca.........	.68	.31	.21	1.30	3
Ancon...........	.43	.29	.12	.93	1
Chagres Val.					
Alhajuela......	.34	.09	1.02	1.12	7

The steamship *Venus* arrived at Cristobal February 3, with a cargo of 100 Oliver all metal dump cars and piling for the Isthmian Canal Commission.

WEATHER CONDITIONS, CANAL ZONE, JANUARY, 1908.

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.					Mean relative humidity.	Precipitation.			Wind.			
		Mean.	Maximum.	Date.	Minimum.	Date.		Total.	Days with .01, or more.	Average since station established.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Date.
Cristobal.	29.90	80	84	11	72	27	80	3.84	17	3.99	10,627	n.e.	31	14
B. Obispo.	29.90	77	88	31	63	26	88	.20	8	1.08	4,339	......	21	26
Ancon.....	29.88	81	93	7	69	13	82	.12	1	.93	6,855	....	28	8

ZONE PUBLIC LANDS.

An Official Statement of Their Origin, Extent, and Conditions in Regard to Their Leasing.

There have been many requests recently for information concerning the conditions in regard to the leasing of public lands in the Canal Zone. In order to obtain full and exact information on the subject the Collector of Revenues was requested to prepare a statement, giving the ownership of the lands, the number of leases for the same which have been granted, and making such suggestions as in his judgment would tend to encourage their settlement and cultivation. The statement of the Collector of Revenues is appended. No action upon the subject has been taken by the Commission.

Ancon, C. Z., January 28, 1908.

Under the provisional delimitation of the Canal Zone, the area of the Zone is approximately 448.47 square miles, divided as to ownership as follows:

	Sq. miles
Owned by the United States by purchase from the New Panama Canal Company	52.11
Owned by the United States by condemnation and purchase since the provisional delimitation of the Zone	3.01
Public land held by the United States by cession from Panama under the treaty	188.91
Owned by the Panama railroad by cession from Colombia and purchased from private owners	68.12
Owned by private persons	136.32
Total	448.47

On May 9, 1904, by letter addressed to the Secretary of War, the President appointed Gen. Geo. W. Davis Governor of the Canal Zone, and directed that General Davis should, as Governor, maintain possession of the Zone, including the public lands therein, and the property on the Isthmus acquired from the Republic of Panama.

On September 2, 1904, the Commission provided by resolution that all real property owned by the United States or under the control of the Isthmian Canal Commission on the Isthmus should be placed in charge and under the management and control of General Davis, as Governor of the Canal Zone, who was authorized to lease lands. The Governor, by order, turned the Land Department of the Zone over to the Collector of Revenues in January, 1905.

When the property of the French Canal Company was transferred to the Canal Commission, a part of the land purchased from the canal company was under lease. The question of continuing the leases on these lands was referred to the Secretary of War who directed that the leases should be continued under the Act of Congress of July 28, 1892 authorizing the Secretary of War to lease "for a period not exceeding five years and revocable at any time, such property of the United States under his control as may not for the time be required for public use, and for the leasing of which there is no authority under existing law."

Subsequently the question of leasing land in the Canal Zone acquired from the Republic of Panama, which was public land of Panama before the exchange of the Canal treaty between Panama and the United States, was referred to the Secretary of War, and he directed that such land should be leased upon the same terms and conditions and in the same manner as the land purchased from the New Panama Canal Company was leased.

The rate charged by the French Canal Company for agricultural lands was equivalent to $6 United States currency, per hectare, per annum. Effective January 1, 1906, under authority of the Secretary of War, this rate was reduced by the Governor of the Canal Zone to $3 United States currency, per hectare, per annum. The rates charged for building lots in towns vary from 5 cents to 30 cents United States currency, per square meter, per annum.

At the time of the transfer of the Zone, the municipalities of Empire and Gorgona claimed certain public lands in the vicinity of those towns as "municipal lands." The lands claimed by them are included in the "public lands" referred to above. In an action between the Panama Railroad Company and Santiago Samudio, involving the title to lands at Empire, the Circuit Court for the Second Judicial Circuit of the Canal Zone decided that the land claimed by the municipality was the property of the railroad.

The land claimed by the municipality of Gorgona was, up to the time when the municipalities of the Zone were abolished, (April 15, 1907), leased by municipal officials under municipal ordinance. Since that time the leases on that land, as they have expired or have been cancelled, have been rewritten by the Collector of Revenues on the same form as the leases for public land, approved by the Secretary of War.

There are at present 863 leases for public lands in the Canal Zone, executed by the Collector of Revenues on the form approved by the Secretary of War. One hundred and thirty-seven of those leases are for agricultural lands, aggregating in area 318 hectares, and 726 are for town lots.

While efforts have been made to secure lessees and settlers of public lands, these efforts have not been systematic nor general. There have been several obstacles in the way of systematic efforts along those lines.

First—There is a great deal of uncertainty respecting land titles in the Canal Zone; some of the land claimed as public land is also claimed by private persons, and some of the land claimed by private persons it will probably be found, upon judicial examination of the title, to actually belong to the Government and not to the claimants.

Second—There has been in the past, and still is, uncertainty respecting the land that will be required for Canal purposes. It has been impossible to invite settlers to accessible and desirable land with any assurance that they would not be disturbed on account of Canal work.

Third—It has been impossible because of the conditions of Canal work, and also because of the provision of the law under which the land is leased, to lease land with any definite tenure, or with any assurance that occupants would be reimbursed for the value of their improvements if the leases should be cancelled.

Fourth—It is not believed that the rents charged for agricultural lands have deterred prospective settlers from leasing such lands, but it is possible that with the precarious tenure under which it is at present leased, there might be more demand for it if the rate were reduced.

Fifth—The difficulty of transportation of supplies over the few and poor roads and trails of the Isthmus makes it difficult for any persons except the natives with their pack horses, to transport agricultural products from farms to the nearest market.

Sixth—It is not to be expected that the agricultural lands of the Zone will be developed by citizens of the United States or natives of the colder parts of Europe who may come here dependent upon their own efforts; such persons can not successfully perform manual labor in this climate. The agricultural development of the Isthmus must be through the efforts of Americans, or others with capital, who will employ the labor of the Isthmus, or of the West Indies, or through the efforts of natives of the Isthmus, the West Indies or Southern Europe who can perform manual labor here themselves. Up to this time, so far as is known, but one definite application has been received for the rental of large tracts of land, and that application was not pressed when the applicant was notified that a lease with permanent tenure could not be given him.

It is believed that in an effort to encourage agricultural development in the Zone the following measures should be taken:

1. Efforts should be made to determine as early as possible the lands in the Canal Zone that will be required for Canal purposes; the limits of the lakes to be created by the construction of dams, and the ground that will be covered by dumps can doubtless be ascertained in large part, if not entirely, at this time.

2. The public lands of the Zone should, where there is any question as to their character, be definitely determined by judicial action to be public lands. This could be accomplished by proceeding under the provisions of Chapter 10 of the Civil Code in force in the Canal Zone under the President's order of March 22, 1907, prescribing a method of establishing titles to real property in the Zone.

3. A survey of the public lands of the Zone should be undertaken and completed as early as practicable; the land to be divided into lots or sections of uniform size.

4. The regulations governing the leasing of public lands should be so amended as to authorize the Commission to grant perpetual or long time leases, and to provide, in the event that land should be required at any time for public purposes after having been leased in perpetuity or for a long period of time, for the reimbursement of the lessee of the value of his improvements upon the land. The revenues arising from the leasing of lands are covered into the Zone treasury, and the Commission should be authorized to use such part of them as may be necessary for the purpose of reimbursement of such occupants of public lands. As the Secretary of War has stated that the authority to lease public land in the Zone is derived from the Act of Congress referred to above, it may be that to change the form of lease Congressional action would be required. It is also possible that a distinction may be made between the two classes of public land in the Zone; *i. e.*, land purchased from the French Canal Company, and that acquired from Panama under the treaty. To the former the United States has absolute title; to the latter it has the right of possession with all the rights of sovereignty in perpetuity.

5. Roads and trails should be constructed

and improved as rapidly as possible. Main roads of substantial macadam construction should be built into the better agricultural parts of the Zone as far as the Zone line, and from those roads cheaper roads and trails should be constructed. There is a considerable sum of money in the Zone treasury available for public improvements in the Zone and a systematic, definite plan for the construction of roads and trails should be adopted.

6. The Commission should be authorized in opening public lands for settlement to reimburse squatters upon the land for the value of any improvements they may have put upon it, unless such persons should exercise the right (which should be given them) to enter into a formal lease for such land.

7. The rate of rental should be decreased, probably to $1 50 per hectare, per annum. It is believed that this amount would reimburse the Government for any expense incurred, and nothing more than such reimbursement should be sought.

8. The authority for leasing the public land in the Zone should be definitely fixed, as it is the opinion of the Examiner of Accounts, acting as Auditor for the Canal Zone, that under the terms of the President's order, dated March 13, 1907, abolishing the municipalities of the Zone, leases to public land in the Zone should be executed by the local Tax Collectors, instead of by the Collector of Revenues.

9. Pending the settlement of title to public lands in the Canal Zone and the survey of such lands, the Commission should be authorized to lease in perpetuity, or for long time, such lands as may be applied for, each application to be passed upon when received.

10. Efforts should be made to induce Spanish and Italian laborers to locate with their families in the Zone, and when the Commission is prepared to make secure the investment of capital in agricultural lands, public notice should be given in the United States of that fact, and of the advantages offered by agriculture in the Zone.

Paraiso Sojourners Club.

THE CANAL RECORD:

The Paraiso Sojourners club was organized at Paraiso on Friday evening, January 31, 1908. The club will hold weekly meetings in the new club house recently erected; the date will be announced just as soon as a permanent assignment is received. For the present the club will meet Friday nights. All Master Masons in good standing are invited to attend. Arrangements have been made for care of visitors along the line. The following officers were elected for a period of six months: W. H. Cheeks, president; O. J. Ridenour, vice-president; H. C. Ragsdale, secretary, John Lanigan, treasurer.

Next meeting Friday, February 7, 1908.

H. C. RAGSDALE,
Secretary.

Paraiso, Jan. 31 1908,

Panama Lodge, K. of P.

THE CANAL RECORD.

All members of Panama Lodge No. 1, K. of P., are requested to send their names and addresses to

O. C. KILGOUR.
K. of R. and S.

Cristobal, Jan. 27.

SOCIAL LIFE OF THE ZONE.

January Meeting of the Ancon Art Society at the American Legation.

The Ancon Art Society held its monthly meeting at the American Legation January 29, from 8:30 to 10 o'clock in the evening. There was a large attendance of regular and associate members, and also a number of invited guests.

The Empire Woman's Club held a special meeting January 30 at the regular hour, the president, Mrs. Frank W. Miracle, being in the chair. There was an unusually good attendance. The refreshments for the afternoon were in charge of Mrs. Rainwater. Chairmen of the various committees have been appointed as follows: Mrs. H. L. Stuntz, home department; Mrs. H. C. Wertz, philanthropy, and Mrs. Waltman, program. The club is arranging for a dance to be given February 8 in honor of the benedict baseball players of Empire. Mrs. E. P. Beck, vice-president of the club left February 2 for a two-months' vacation in the States and Mexico.

A musical and dramatic club for women, the Thespian, has been organized in Empire, with Mrs. Harris as president, and Miss Eunice Browning as secretary. The members meet regularly for practice and are planning to give a vaudeville performance.

A special meeting of the Ancon Woman's Club was held January 29 for the purpose of completing important business left over from the previous meeting. The regular meeting will be held February 5 at 3 p. m, when there will be informal music.

Mrs. Herbert G. Squiers will be the guest of honor at the Cristobal Woman's Club, February 5, when an informal reception will be held.

The Ladies' Social Club of Bas Obispo gave a dance on Saturday evening, January 25 in the dining room of the Commission hotel, which had been decorated for the occasion with palms and Japanese lanterns. The orchestra of the I. C. C. band furnished the music. There was an intermission at eleven o'clock when a buffet luncheon was served. The attendance was large.

At a special meeting of the Gatun Women's Club held February 1, Miss Anna Gohrman, teacher of the Gatun school, spoke on the work of the teachers and parents during the school life of the child and pointed out the various ways in which cooperation could be of great benefit. The club had issued invitations to all the mothers who had children in the school. There was an open discussion at the close of the address. In connection with the question of education in the Zone, and as result of the action taken at the meeting of the Federation of Women's Clubs in January, a circular has been issued from the Department of Schools requesting the parents to express themselves with regard to the advisability of one session for the primary pupils. The Gatun women discussed the matter with the teacher at the meeting.

The Paraiso Woman's Club held its regular business meeting in the club room January 30 with the president, Mrs. J. C. Barnett, in the chair. Blue and white were adopted as the club colors. Several matters of local interest were discussed and committees appointed to act in regard to the same. The new club rooms will be ready for occupancy within a short time and the club will give a social entertainment on that occasion.

The young ladies of Ancon gave their leap year or "white" dance at the Hotel Tivoli, Saturday evening, February 1. The function was the prettiest of its kind that has been given this season.

PERSONAL.

Sir John Rodger, Governor of the British Crown Colony of the Gold Coast in Western Africa, spent several days upon the Isthmus during the past week. He came here from the States for the purpose of seeing the Canal, and made a thorough inspection of it as well as of the hospitals, commissaries, quarters, etc. Sir John has spent twenty-five years in the tropics. He was at one time British Resident in charge of the Malay state of Sarawak, near the Philippines, where he became a warm personal friend of Secretary Taft while the latter was Governor of the Islands.

Rev. Thomas A. Uzzell of Denver, Colo., accompanied by Mr. Fred. Plattner, a young business man of that city, spent the past week on the Isthmus and visited all parts of the construction work of the Canal as well as the hospital and other points of interest. Parson Uzzell, as he is best known, has been for twenty-three years the pastor of the People's Tabernacle at Denver, and is also chairman of the Board of County Commissioners. He has been a warm personal friend of President Roosevelt for many years and at the first reunion of the Rough Riders, held at Las Vegas, New Mexico, in 1899, Parson Uzzell preached the anniversary sermon which greatly pleased Mr. Roosevelt who was then Governor of New York.

Mr. Albert R. Morawetz, United States Consul General at large, has been a visitor on the Isthmus for the past week. Mr. Morawetz's jurisdiction covers all the countries of Central and South America, and the West Indian islands.

Mr. Carlo C. Papini, Italian Consul at New Orleans, is making a visit of several days to the Isthmus. He has inspected the principal points along the line of the Canal and has talked freely with the Italian laborers. He reports that without exception they have assured him that they are entirely satisfied with their wages and with the treatment which they receive at the hands of the Commission.

Judge L. C. Collins, of Cristobal, sailed for New York on the *Finance*, January 27 for a nine weeks visit to the States.

Mrs. P. S. McCormick of Cristobal, sailed on the *Ellis*, January 21 for a visit to her home in New Orleans, where she will remain until after the Mardi Gras celebration.

Paymaster E. P. Beck and wife of Empire, sailed from Cristobal on the *Colon*, February 2 for an eight weeks' visit to the States.

Among the passengers returning to the Isthmus on the *Advance* which arrived at Cristobal February 1, were Dr. and Mrs. J. F. Leys and Dr. W. C. Gibson of Colon Hospital, and Mrs. E. P. Beverly and family of Cristobal.

RECORD OF EXCAVATION SINCE AMERICAN OCCUPATION.

MONTHLY TOTALS BY CUBIC YARDS, PLACE MEASUREMENT.

BY STEAM SHOVELS.

CULEBRA DIVISION.

Mos.	1904	1905	1906	1907	1908
Jan.		70,650	120,990	566,750	1,227,022
Feb.		75,200	168,410	639,112	
Mar.		132,840	239,178	815,270	
Apr.		126,749	213,177	879,527	
May	27,556	75,935	196,209	690,365	
June	32,551	76,905	212,623	624,586	
July	31,599	78,570	159,789	770,570	
Aug.	35,056	49,210	244,823	786,866	
Sep.	25,220	44,085	291,452	753,468	
Oct	19,695	52,940	327,009	834,499	
Nov	28,860	60,540	221,642	790,632	
Dec.	42,935	70,630	307,689	1,025,485	
Totals	243,472	914,254	2,702,991	9,177,130	1,227,022

Total to Feb. 1, 1908—14,264,869 cubic yards.

GATUN.

Locks, Dams and Spillways.

Mos.	1906*	1907		1908	
	From Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan.		47,539		193,567	98,588
Feb.		70,177			
Mar.		100,151			
Apr.		103,459			
May		70,528			
June		71,181	3,832		
July		59,537	14,628		
Aug.		78,357	26,866		
Sep.		87,423	36,315		
Oct.	3,055	136,777	40,236		
Nov	11,517	121,635	40,987		
Dec.	12,056	160,795	69,756		
Totals	26,628	1,107,559	232,620	193,567	98,588

Total to Feb. 1, 1908—1,658,962 cubic yards.

* No work done outside of Canal Prism.

COLON AND CHAGRES DIVISIONS.

Mos.	Colon.			Chagres.		
	1907*	1908		1907*	1908	
	From Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	From Canal Prism	Outside Canal Prism
Jan.		62,835			169,447	
Feb.						
Mar.						
Apr.						
May						
June						
July.	731					
Aug.	15,257			2,900		
Sep.	28,837			21,546		
Oct.	41,078			25,627		
Nov.	40,003			44,044		
Dec.	46,945			98,652		
Tot.	172,851	62,835		192,769	169,447	

Total to Feb. 1, 1908—235,686 cubic yards.

Total to Feb. 1, 1908—362,216 cubic yards.

* No work done outside of Canal Prism,

PACIFIC DIVISION.

Locks, Dams and Spillways.

Mos.	1908	
	From Canal Prism	Outside of Canal Prism
Jan.	7,203	2,955
Feb.		
Mar.		
Apr.		
May		
June		
July.		
Aug.		
Sep.		
Oct.		
Nov.		
Dec.		
Totals	7,203	2,955

Total to Feb. 1, 1908—10,158 cubic yards.

LA BOCA.

Locks, Dams and Spillways.

Mos.	1907	
	From Canal Prism	Outside Cana Prism
Jan.		
Feb.		
Mar.	538	3,367
Apr.		1,756
May		762
June		4,907
July	4,725	9,047
Aug	6,874	8,991
Sep.	5,431	7,375
Oct.	7,108	112
Nov.	8,190	1,335
Dec.	6,520	1,195
	39,386	38,847

Total to Jan. 1, 1908—78,233 cubic yards.

Grand total by steam shovels Feb. 1, '08—16,610,124 cu. yds.

FRENCH AND AMERICAN RECORDS.

Highest elevation on new center line of Canal before excavation began by the French:	FEET
At Culebra............312 | At Bas Obispo............	233
Greatest depth of excavation by the French:	
On I.C.C. Canal axis: at Culebra, 161; at Bas Obispo	148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-feet level Canal:	
At Culebra—at same point as before......................	111
At barrier on Contractor's Hill.................about	140
At Bas Obispo................................	45
Amount excavated under American control:	CUBIC YARDS
In Culebra Division (Canal prism) to Feb. 1, 1908	14,264,869
Total excavation at all points under American control to Feb. 1, 1908	25,469,054

	CUBIC YARDS
Total excavation by the French at all points and including diversion channel.................. about	81,548,000
Total estimated excavation required April 1, 1907 for an 85-feet level canal:	
In Canal prism......................................	101,050,000
On lock sites......................................	7,965,000
For regulating work and diversion channel	2,150,000
Dredging in old channel, Cristobal to Gatun, to open construction channel, and at Panama, to keep channel open to La Boca.........	3,350,000
Total...	114,515,000

BY DREDGES.

COLON.

Mos.	1905*	1906*	1907		1908	
	Outside of Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Can'l Prism
Jan.		90,700		111,100	444,403	46,298
Feb.		105,500		110,002		
Mar.		126,650		84,145		
April		87,200		69,889		
May	60,700	64,875		133,847		
June		73,500	17,000	107,118		
July.	58,050	69,000	104,322	5,600		
Aug.	53,183	54,000	189,170	5,127		
Sep.	48,837	123,540	403,842			
Oct.	48,800	111,020	409,632	5,488		
Nov.	38,000	63,260	417,297	5,500		
Dec.	92,250	58,400	428,053	14,782		
Totals	399,820	1,027,645	1,969,316	652,598	444,403	46,298

Total to Feb. 1, 1908—4,540,080 cubic yards.

* No work done inside of Canal Prism.

LA BOCA.

Mos.	1905*	1906*	1907		190	
	Outside of Canal Prism	Outside Canal Prism	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside Can'l Prism
Jan.		95,940		94,710	460,250	
Feb.		95,940		93,480		
Mar.		116,820		92,319		
Apr		110,700		104,855		
May		112,340		122,157		
June	50,676	62,697	64,352	69,223		
July.	41,533	98,400	108,338			
Aug.	54,530	111,930	168,284			
Sep.	114,308	105,780	144,625	9,350		
Oct.	81,836	97,170	357,122			
Nov.	71,176	92,988	365,423			
Dec.	71,094	90,528	349,551			
Totals	485,153	1,191,233	1,557,695	586,094	60,250	

Total to Feb. 1, 1908—4,280,425 cubic yards.

* No work done inside of Canal Prism

GATUN DAM.

Months	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan.				
Feb.				
Mar.				
Apr.				
May				
June				
July				
Aug.				
Sep.		17,000		
Oct.		16,650		
Nov.		4,775		
Dec.				
Totals		38,425		

Total to Feb. 1, 1908—38,425 cubic yards.

Grand total by dredges to Feb. 1, 1908—8,858,930 cubic yards.

Grand total by steam shovels and dredges to Feb. 1, 1908—25,469,054 cubic yards.

ISTHMIAN CIVIL SERVICE.

Regulations Governing Examinations, Appointments, Transfers, and Promotions on the Isthmus of Panama.

SECTION I.—ORGANIZATION.

1. The Civil Service Commission shall, after conference with the Isthmian Canal Commission, designate a local board of examiners of not less than three employes of the latter-named Commission to be located on the Isthmus, for the purpose of conducting examinations, making certifications, and performing such other duties as may be required under the civil service act and rules, subject to the control of the Civil Service Commission.

2. One of the members of such board shall be designated secretary; one, assistant secretary; and the others, members.

3. The secretary, or in his absence the assistant secretary, shall be custodian of all books, records, and files relating to the work of the Civil Service Commission, and shall conduct the correspondence and perform the necessary clerical work in connection with the duties of said board. He shall also convene the board from time to time for the transaction of necessary business, and shall preserve records of its proceedings.

SECTION II.—PHYSICAL REQUIREMENTS AND AGE LIMITS.

1. Every applicant for examination for service on the Isthmus of Panama shall be required to submit a certificate of physical examination on a prescribed form, from a reputable practicing physician, preferably in the service of the United States, and to furnish any further evidence concerning his health and physical condition that may be required.

2. Only those applicants who are in good health and in apparently sound physical condition shall be admitted to examination, or certified for appointment or for transfer from other branches of the classified service.

3. The age limits for any examination or registration shall be determined by the Civil Service Commission, after consultation with the Isthmian Canal Commission, or its representatives.

SECTION III.—EXAMINATIONS.

1. Examinations shall be held at suitable places on the Isthmus of Panama for positions on the Isthmus at the same time as in the United States, when the interests of the service so require. Such examinations shall correspond in scope and character with examinations for similar positions in the United States.

2. The papers of all examinations shall be rated at the office of the United States Civil Service Commission, except in cases when, to meet the needs of the service, the Commission directs that the rating of papers be done by the local board. A rating of 70 or more shall constitute eligibility.

3. All officers and employes in the service of the Isthmian Canal Commission upon the Isthmus of Panama, except those who are to perform the duties of clerk, bookkeeper, stenographer, typewriter, surgeon, physician, trained nurse, or draftsman, may be appointed without examination under the civil service rules. Appointments to clerical positions on the Isthmus paying not more than $75 in gold per month may also be made without examination.

4. No employe appointed in the Isthmian Canal Service otherwise than through competitive examination or by transfer or promotion from a competitive position shall be promoted or transferred to a competitive position. He may enter a competitive position only through original appointment as the result of open competitive examination.

5. Examination for the Isthmian Canal Service shall be open only to citizens of the United States. The registers established from these examinations shall be combined with the registers established in the United States for similar positions in the Isthmian Service, and certification will be issued by the Civil Service Commission in the order of the standing of the eligibles on the combined registers which shall be maintained at Washington. Appointments shall be made only after formal certification has been issued by the Civil Service Commission.

SECTION IV.—TEMPORARY APPOINTMENTS AND TRANSFERS.

1. The local board shall have authority to approve temporary appointments for job work under section 3, Rule VIII, when this work is temporary in character, and there will be no need for the services of a person in a position after the completion of the particular piece of work for which the appointment is made. Such appointments can be authorized only for a period of three months, but may be extended for a similar period but no longer. When a position is permanent in nature and the work will continue indefinitely, there is no authority for making a temporary job appointment, and steps shall be taken immediately for filling the position permanently. Pending the filling of such position through certification, reinstatement, transfer, or promotion, a temporary appointment may be made, with the approval of the local board, under the authority of section 1 of civil-service Rule VIII, but such appointment shall continue only for such period as is necessary to fill the vacancy permanently by one of the methods indicated. No temporary appointments shall be made under the authority of section 1 of the rule until some action has been initiated for filling the vacancy permanently. Persons who are serving under temporary appointment and who desire to qualify for permanent appointment should enter the next appropriate examination that may be announced on the Isthmus of Panama.

2. A person who has had previous service in a classified position under the Isthmian Canal Commission and who is transferred to the employ of the Panama Railroad Company may be retransferred at any time; but no employee of the Panama Railroad Company may be transferred from the employ of that company to a position under the Isthmian Canal Commission unless he has either been in the employ of the Isthmian Canal Commission or is within reach of certification for appointment on the Isthmus of Panama.

3. Transfers and promotions from one classified position to another classified position on the Isthmus of Panama may be made without the previous consent of the Civil Service Commission, when in the opinion of the local board the tests for original entrance to the two positions are not essentially different; otherwise the employee affected shall first pass an appropriate noncompetitive examination. All such transfers and promotions shall be included in the monthly reports of changes in the service to be made by the Isthmian Canal Commission to the Civil Service Commission.

4. The provision of the civil-service rules that no person appointed on the Isthmus otherwise than through competitive examination or by transfer or promotion from a competitive position shall be transferred to a competitive position prohibits the transfer to the United States of persons appointed on the Isthmus otherwise than through competitive examination or by transfer or promotion from a competitive position in the United States. A person transferred from a competitive position in the United States may be retransferred without regard to the length of service on the Isthmus. Other persons whose transfers are not prohibited may be transferred to the United States after three years' service on the Isthmus, or after a shorter period of service if it is shown to the satisfaction of the Civil Service Commission that the transfer is required in the interest of the service. Such transfer will not ordinarily be permitted until the person has served two years. Aliens who entered the service either through examination or through classification shall have no right or privilege of transfer to any classified position not on the Isthmus.

SECTION V.—CONSTRUCTION OF THE CIVIL-SERVICE RULES AND AMENDMENTS IN THESE REGULATIONS.

1. Except where specifically construed and defined in these regulations, the civil-service rules will be applied to the Isthmian Canal Service in their usual construction or interpretation.

2. These regulations may be amended by the Civil Service Commission in conformity with the civil-service rules at any time after consultation with the Isthmian Canal Commission or its authorized representatives.

Approved January 20, 1908.
WASHINGTON, D. C.

GEO. W. GOETHALS,
Chairman, Isthmian Canal Commission,
JOHN C. BLACK,
President, Civil Service Commission.

Excursion to Pearl Islands.

The Ancon Amusement Association has chartered a large ocean-going steamer of about 5,000 tons for its excursion to Pearl Islands on Sunday, February 16. The steamer will sail from La Boca immediately upon the arrival of the train leaving Panama at 8 a. m. It is expected to reach the point of destination about noon. The greater part of the return trip will be made by moonlight, arriving at La Boca about 10:30 p. m. Two meals will be served without extra charge, and music will be furnished by the I. C. C. band.

On account of the cost involved, a charge of $2 gold will be made for each member of the association, each member of their family, and each lady invited. Children under six years of age, free, and between the ages of six and twelve years, one-half fare.

All members desiring to participate in this outing are requested to forward to Mr. J. P. Avis, secretary, office of L., Q. and S., Ancon, their names, and those of their family and the ladies whom they desire to invite, with the necessary funds, on or before February 10, after which date subscriptions will be received from non-members up to the number of passengers the steamer will comfortably accommodate, at $4 gold for each person.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending January 22:

FRESH MEATS.

		Price. cts
Beef, sirloin, roast	*per lb*	*25*
Beef, rump, roast	*do*	*25*
Beef, porterhouse	*do*	*25*
Beef, rib-roast, short-cut (not under 3½ pounds)	*do*	*18*
Beef, rib-roast, second-cut	*do*	*15*
Beef, chuck-roast	*do*	*12*
Beef, soup	*do*	*6*
Beef, stew	*do*	*10*
Beef, corned	*do*	*10, 12 14*
Beef, suet	*do*	*6*
Steaks, sirloin	*do*	*25*
Steaks, porterhouse	*do*	*25*
Steaks, rump	*do*	*25*
Steaks, tenderloin	*do*	*25*
Steaks, round	*do*	*14*
Veal, cutlets	*do*	*21*
Veal, short-cut chops	*do*	*20*
Veal, loin	*do*	*13*
Veal, entire forequarters	*do*	*9*
Veal, for stewing	*do*	*9*
Mutton, entire forequarters	*do*	*9*
Mutton, short-cut chops	*do*	*18*
Mutton, leg	*do*	*14*
Lamb, for stewing	*do*	*10*
Lamb, entire forequarters	*do*	*10*
Lamb, chops	*do*	*28*
Lamb, legs	*do*	*18*
Pork, cuts	*do*	*20*

MISCELLANEOUS.

Livers, beef	*per lb*	*9*
Livers, calf	*each*	*60*
Sausage, pork	*per lb*	*16*
Sausage, Bologna	*do*	*15*
Sweet bread, veal	*each*	*1.20*
Sweet bread, beef	*per lb*	*25*
Tripe, pickled, Honeycomb	*do*	*12*
Oysters, ½-gallon kegs	*each*	*70*
Oysters, 1-qt. tins, square	*do*	*45*
Pigs' tongues	*per lb*	*12*
Pigs' feet	*do*	*8*
Ox tongues	*each*	*90*

POULTRY AND GAME.

Chickens, dressed (milk-fed)	*each*	*1.15*
Fowls	*do*	*90*
Ducks, fatted	*do*	*1.05*
Turkeys (12 to 18 lbs)	*per lb*	*26½*
Broilers, (chicken frys)	*each*	**65*
Squabs	*do*	*35*
Eggs, fresh	*per dozen*	*45*

CURED MEATS AND LARD.

Bacon, strips	*per lb*	*23*
Bacon, English breakfast, slic'd	*do*	*§26*
Ham, sugar-cured, sliced	*do*	*§25*
Ham, one-half (for boiling)	*do*	*§20*
Ham, Yorkshire (imported)	*do*	*25*
Ham, Westphalia	*do*	*45*

DAIRY PRODUCTS.

Butter, prints, prime quality	*per lb*	*40*
Cheese, cream, Phila.	*each*	*22*
Cheese, Neufchatel	*do*	*6*
Cheese, Roquefort.	*per lb*	*45*
Cheese, Young America	*do*	*22*
Cheese, Swiss	*per lb*	*30*
Cheese, Gouda	*do*	*30*
Cheese, Camembert	*each*	*28*
Cheese, Edam	*each*	*90*
Milk	*quart*	*15*

FRUITS AND VEGETABLES.

Pears	*per lb*	*10*
Pineapples	*each*	*20*
Limes	*per hun.*	*36*
Bananas	*per dozen*	*5*
Cranberries	*per lb*	*10*
Grape Fruit	*each*	*2½*
Apples	*per lb*	*5½*
Apples, fancy table	*per lb*	*8*
Beets	*per lb*	*5*
Oranges	*per dozen*	*10*
Tomatoes	*per lb*	*10*
Grapes	*do*	*14*
Spinach	*per lb*	*14*
Lettuce	*per lb*	*14*
Celery	*bunch*	*18*
Cucumbers	*per lb*	*28*
White potatoes	*do*	*2½*
Cabbage	*per lb*	*2½*
Turnips, yellow and white	*do*	**2½*
Lemons	*dozen*	*25*
Onions	*per lb*	*3½*
Cauliflower	*do*	**7*
Sauer kraut	*do*	*3½*
Parsnips	*do*	*6½*
Plantains	*dozen*	*12*
Squash, summer	*do*	*5*
Carrots	*per lb*	*4½*
Sweet Potatoes, American	*do*	*3*
Egg Plant	*per lb*	*10*
Parsley	*do*	*20*
Yams	*do*	*2½*

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* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from Commissaries.*

NEW ARTICLES

		Price. cts.
Papeteries, No. 337, stock No. 38,438	*box*	*1.50*
Coats, men's, black, Sicilian, stock No. 38,439	*each*	*2.65*
Pipes, briar, (B BB), silver mounted, with vulcanite mouthpiece, stock No. 38,455	*do*	*1.00*
Pipes, briar, (B BB), silver mounted, with vulcanite mouthpiece, stock No. 38,468	*do*	*1.95*
Pipes, briar, (B BB), silver mounted, with vulcanite mouth-piece, stock No. 38,473	*do*	*85*
Pipes, briar, (B BB), silver mounted, with vulcanite mouthpiece, in cases, stock No. 38,469.	*do*	*1.55*
Pipes, briar, (B BB), silver mounted, with vulcanite mouthpiece, in cases, stock No. 38,473.	*do*	*2.10*
Pipes, briar, (B BB), silver mounted, with vulcanite mouthpiece, in cases, stock No. 38,473.	*do*	*1.75*
Pipes, briar, silver mounted, with amber mouthpiece, in cases, stock No. 38,477	*do*	*1.60*
Pipes, briar, silver mounted, with amber mouthpiece, in cases, stock No. 38,478	*do*	*2.10*
Pipes, briar, silver mounted, with amber mouthpiece, in cases, stock No. 38,481	*do*	*2.40*
Pipes, briar, silver mounted, with amber mouthpiece, in cases, stock No. 38,485	*do*	*1.45*
Duck, white, cotton, stock No. 38,489	*yard*	*24*
Duck, white, cotton, stock No. 38,491	*do*	*28*
Flannel, Saxony, 26-in., stock No. 38,412	*do*	*25*
Suiting, tweed, 28-in., stock No. 38,413	*do*	*1.20*
Suiting, tweed, 28-in., stock No. 38,414	*do*	*1.50*
Suiting, tweed, 28-in., stock No. 38,415	*do*	*1.40*
Suiting, mixture, 56-in., stock No. 38,416	*do*	*1.35*
Suiting, mixture, 56-in., stock No. 38,417	*do*	*2.40*
Belts, black, leather, 36 in. to 42 in., stock No. 38,537	*each*	*25*
Belts, brown, leather, 36 in. to 42 in., stock No. 38,537	*do*	*25*
Bags, ladies', monitor, dressing, stock No. 38,538	*do*	*17.05*
Cases, gents', suit, 24-in., stock No. 38,541	*do*	*8.80*
Powder puffs, satin top, stock No. 38,539	*do*	*20*
Cases, ladies', fitted, stock No. 38,542	*do*	*22.85*
Spoons, sterling silver, tea, Revere, six spoons in each case, stock No. 37,869	*case*	*4.95*
Spoons, sterling silver, dessert, Revere, six spoons in each case, stock No. 37,871	*do*	*9.50*
Spoons, sterling silver, coffee, Revere, six spoons in each case, stock No. 37,872	*do*	*4.05*
Spoons, sterling silver, table, Revere, six spoons in each case, stock No. 37,873	*do*	*12 85*
Forks, sterling silver, table, Revere, six forks in each case, stock No. 37,873	*do*	*12 85*
Knives, sterling silver, table, Revere, six knives in each case, stock No. 37,874	*do*	*10.35*
Spoons, sterling silver, soup, Revere, six spoons in each case, stock No. 37,875	*do*	*8.45*
Knives, sterling silver, dessert, Revere, six knives in each case, stock No. 37,876	*do*	*8.90*
Spoons, sterling silver, olive, Revere, one spoon in each case, stock No. 37,877	*do*	*2.10*
Spoons, sterling silver, sugar, Revere, one spoon in each case, stock No. 37,879	*do*	*1.80*
Spoons, sterling silver, bon-bon, Revere, one spoon in each case, stock No. 37,879	*do*	*1.80*
Tongs, sterling silver, sugar, Revere, one tong in each case, stock No. 37,881	*do*	*2.20*
Knives, sterling silver, butter, Revere, one knife in each case, stock No. 37,882	*do*	*2.20*
Forks, sterling silver, pickle, Revere, one fork in each case, stock No. 37,883	*do*	*2.10*
Forks, sterling silver, cold meat, Revere, one fork in each case, stock No. 37,884	*do*	*4·10*
Sets, sterling silver, carving, Revere, one fork, carver and steel in each case, stock No. 37,885	*do*	*6.45*
Sets, sterling silver, salad, Revere, one spoon and fork in each case, stock No. 37,886	*do*	*8.35*
Spoons, sterling silver, platter, Revere, one spoon in each case, stock No. 37,887	*do*	*10.00*
Forks, sterling silver, vegetable, Revere, one fork in each case, stock No. 37,888	*case*	*6.79*
Spoons, sterling silver, vegetable, one spoon in each case, stock No. 37,889	*do*	*6.10*
Sets, sterling silver, fish, Revere, one knife and fork in each case, stock No. 37,891	*do*	*13.75*
Servers, sterling silver, cake, Revere, one server in each case, stock No. 37,892	*do*	*3.90*
Ladles, sterling silver, soup, Revere, one ladle in each case, stock No. 37,893	*do*	*16.15*
Spoons, sterling silver, tea, Avalon, six spoons to set, stock No. 37,894	*set*	*5.70*
Spoons, sterling silver, table, Avalon, six spoons to set, stock No. 37,895	*do*	*15.95*
Spoons, sterling silver, bouile, Avalon, six spoons to set, stock No. 37,896	*do*	*5.95*
Spoons, sterling silver, salt, Avalon, stock No. 37,897	*each*	*1.20*
Sifter, sterling silver, sugar, Avalon, stock No. 37,898	*do*	*2.65*
Spoons, sterling silver, bon-bon, Avalon, stock No. 37,899	*do*	*1.55*
Fork, sterling silver, cold meat, Avalon, stock No. 37,911	*do*	*4.25*
Forks, sterling silver, vegetable, Avalon, stock No. 37,912	*do*	*5.30*
Ladle, sterling silver, medium, Avalon, stock No. 37,913	*do*	*13.80*
Knives, sterling silver, fruit, Avalon, six knives to set, stock No. 37,914	*set*	*7.65*
Forks, sterling silver, desert, Avalon, six forks to set, stock No. 37,915	*do*	*11.40*
Tongs, sterling silver, sugar, Avalon, stock No. 37,916	*each*	*2.10*
Ladle, sterling silver, gravy, Avalon, stock No. 37,917	*do*	*3.65*
Knives, sterling silver, dessert, Avalon, six knives to set, stock No. 37,918	*set*	*9.00*
Forks, sterling silver, table, Avalon, six forks to set, stock No. 37,919	*do*	*15.95*
Spoons, sterling silver, 5 o'clock tea, Avalon, six spoons to set, stock No. 37,921	*do*	*4.55*
Spoons, sterling silver, olive, long, Avalon, stock No. 37,922	*each*	*2.30*
Scoop, sterling silver, cheese, large, Avalon, stock No. 37,923	*do*	*4.60*
Tongs, sterling silver, ice, Avalon, stock No. 37,924	*do*	*7.80*
Forks, sterling silver, pickle, Avalon, stock No. 37,925	*do*	*2.30*
Spoons, sterling silver, salad, Avalon, stock No. 37,926	*do*	*4.90*
Spoons, sterling silver, vegetable, Avalon, stock No. 37,927	*do*	*5.95*
Ladles, sterling silver, soup, Avalon, stock No. 37,928	*do*	*15.85*
Set, sterling silver, carving, Avalon, one carver, fork and knife to set, stock No. 37,929	*set*	*6.30*
Spoons, sterling silver, mustard, Avalon, stock No. 37,931	*each*	*1.10*
Spoons, sterling silver, coffee, Avalon, six spoons to set, stock No. 37,932	*set*	*3.30*
Fork, sterling silver, toast, Avalon, stock No. 37,933	*each*	*3.30*
Knives, sterling silver, tea, Avalon, six knives to set, stock No. 37,934	*set*	*7.20*
Spoons, sterling silver, soup, Avalon, stock No. 37,935	*each*	*12.55*
Olives, Queen, French	*bot*	*36*
Olives, Queen, Amellaux	*do*	*15*
Olives, Queen, Torradas	*do*	*26*
Oil, olive, ex. superior, Dannse Co.	*do*	*40*
Oil, olive, vierge sup., Dannse Co.	*do*	*30*
Sauce, chutney, Heinz	*do*	*29*
Strainers, bowl, stock No 38,585.	*each*	*3*
Tongs, ice, No. 1, stock No 38,652	*do*	*80*
Tongs, ice, No. 3, stock No. 38,653	*do*	*1.00*
Traps, mouse, stock No. 38,654	*do*	*6*
Hooks, hammock, stock No. 38,655	*do*	*6*
Stoves, lamp, No. 1, stock No. 38,656	*do*	*60*
Stoves, lamp, No. 2, stock No. 38,657	*do*	*1.15*
Stoves, lamp, No. 3, stock No. 38,658	*do*	*1.65*
Cuspidors, stock No. 38,659	*do*	*25*
Lamps, bracket, stock No. 38,678	*do*	*60*
Traps, rat, wood case, stock No. 38,679	*do*	*6*
Knives, bread, wood handle, stock No. 38,681	*do*	*10*
Pins, rolling, stock No. 38,714	*do*	*12*
Sifters, flour, No. 1, stock No. 38,715	*do*	*10*
Sifters, flour, No. 16, stock No. 38,717	*do*	*12*
Graters, nutmeg, No. 13, stock No. 38,716	*do*	*2*
Graters, shell, No. 7, stock No. 38,718	*do*	*3*
Graters, cylinder, No. 35, stock No. 38,719	*do*	*6*

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
Capt. George M. Hoffman, U. S. A., Assistant Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun.
Sydney B. Williamson, Division Engineer, Corozal.
E. A. LeMay, Chief Clerk.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
P. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Carl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shoatz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Feb. 5, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee.

Bartholomew, Arthur
Bees, Carl
Bergstrom, Mrs. H.
Bisel, Wm. J.
Borden, Eddie
Bromley, J. Z.
Brown, H. M.
Conlan, C. P.
Conrad, J.
Conway, J. W.
Dent, Louis
Fagan, Sam
Garver, John
Gillespie, J. B.
Hall, Q. A.
Ham, Harry
Hawks, B. A.
Hopkins, R. E.
Jackson, N., Mr. and Mrs.
Jones, W. B.
Manish, Frank
McIntyre, S.
Parthenis, A.
Perkins, A. A.
Potts, Geo.
Ridgway, Miss N.
Schlaiker, M.
Simpson, Mrs. S. S.
Styers, Walter
Ulich, S.
Whelpy, A. H.
Wood, Rev. Thos.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Panama	*P.R.R.*	*Thursday*	*Jan. 30*
Prinz Aug. Wilhelm	*H.-A.*	*Saturday*	*Feb. 1*
Allianca	*P.R.R*	*Tuesday*	*Feb. 4*
Siberia	*H.-A.*	*Saturday*	*Feb. 8*
Atrato	*R.-M.*	*Saturday*	*Feb. 8*
Finance	*P.R.R.*	*Monday*	*Feb. 10*
Colon	*P.R.R.*	*Saturday*	*Feb. 15*
Prinz Joachim	*H.-A.*	*Saturday*	*Feb. 15*
Advance	*P.R.R.*	*Thursday*	*Feb. 20*
Sarnia	*H.-A.*	*Saturday*	*Feb. 22*
Trent	*R.-M.*	*Saturday*	*Feb. 22*
Panama	*P.R.R.*	*Tuesday*	*Feb. 25*
Prinz Aug. Wilhelm	*H.-A.*	*Saturday*	*Feb. 29*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston enroute to Colon.

FROM COLON

Advance	*P.R.R.*	*Friday*	*Feb. 7*
Prinz Eitel Friedrich	*H.-A.*	*Tuesday*	*Feb. 11*
Panama	*P.R.R.*	*Wednesday*	*Feb. 12*
Trent	*R..M.*	*Wednesday*	*Feb. 12*
Allianca	*P.R.R.*	*Monday*	*Feb. 17*
Prinz Aug. Wilhelm	*H.-A.*	*Tuesday*	*Feb. 18*
Finance	*P.R.R.*	*Sunday*	*Feb. 23*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Feb. 25*
Oroya	*R.-M.*	*Wednesday*	*Feb. 26*
Colon	*P.R.R.*	*Friday*	*Feb. 28*
Prinz Joachim	*H.-A.*	*Tuesday*	*Mch. 3*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Magdalena	*R.M.*	*Tuesday*	*Feb. 4*
Atrato	*R.M.*	*Tuesday*	*Feb. 18*
Trent	*R.M..*	*Tuesday*	*Mch. 3*
Atrato	*R.-M.*	*Tuesday*	*Feb. 18*

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Floridian*, about Feb. 10, and *Jamaican*, about Feb. 22.

The following steamers have recently arrived at La Boca: January 28, *Ecuador* from Guayaquil, and *Peru* from Valparaiso. January 31, cable ship *Guardian* from Callao. Departures were: January 25, *Aztec* for Central American ports; January 26, *Manavi* for Guayaquil; January 29, *Mackinaw* for Central American ports; January 30, *Newport* for San Francisco.

Concert.

By the I. C. C. Band at Culebra, C. Z., Sunday, February 9, 1908, at 2:15 p. m.:

PROGRAM:

1 March..........*With Sword and Lance*..........Starke
2 Selection..........*I'm Trying so Hard to Forget You*..........Harris
3 Waltz..........*Vienna Beauties*..........Zichrer
4 Reverie..........*Apple Blossoms*..........Roberts
5 Cornet solo..........*Romanza*..........Grecio
DIMITRIOS LEORES.
6 Selection..........*Mikado*..........Sullivan
7 Novellette..........*Sweet Jasmine*..........Bendix
8 Overture..........*Schauspiel*..........Bach
9 Patrol..........*The Blue and Grey*..........Dalbey
10 March..........*Handicap*..........Rosey

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at the Hotel Tivoli, February 16.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, FEBRUARY 12, 1908. No. 24.

The Canal Record

Published weekly under the authority and supervision of the ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed by the full name and address of the writer.

NOTES OF PROGRESS.

Savings of Employes.

During the year 1907 there were issued in the seventeen post-offices of the Canal Zone 122,488 postal money orders for a total amount of $3,633,662.56. Of this amount, about two-thirds, or $2,458,377.75 was returned to the United States, and $737,143.70 was retained in the Zone. These figures show that the employes of the Canal are a saving body of men, for the orders drawn payable in the Zone represent the money which employes accumulate to take home with them when they go on their annual leave. Assuming that this whole amount is drawn by Americans, the grand total which is returned to the United States through these orders is $3,195,521.45, or about 88 per cent. of the whole, leaving $438,141.11, or 12 per cent. as the savings of employes from other countries. Of these other countries, as the appended list shows, Barbados takes the lead with $236,826.04, and Jamaica comes next with $122,893.64.

United States	$2,458,377.75
Canal Zone	737,143.70
Antigua	12,653.46
Barbados	236,826 04
British Honduras	294.50
The Bahamas	65.00
British Guiana	5,523.08
Dominica	1,181.59
Demerara	90.00
Grenada	30,275.57
Jamaica	122,893.64
Montserrat	3,905 00
Nevis	677.79
St. Kitts	3,076.44
St. Lucia	14,353.35
St. Vincent	6,310.55
Trinidad	15.10
Total	$3,633,662.56

The January postal money order business in the Canal Zone was the largest on record so far as the total amount of money was concerned. The number of orders issued was slightly smaller than in December, being 13,446 against 13,960 in the previous month, but the amount for which they were issued, $427,894.10, was $19,879.71 larger than that for December.

This regular increase in the monthly total of money orders, drawn practically from the same body of men, seems to indicate a steady growth in habits of economy and sobriety of living among the employes.

New Steamships for the Panama Line.

Senator Lodge, on January 28, introduced an amendment to the Urgency Deficiency Appropriation Bill providing for the purchase of two steamships by the Isthmian Canal Commission at a cost of $1,600,000. These boats are to be employed in the transportation of supplies, etc., for the construction of the Panama Canal. The amendment was referred to the Committee on Appropriations and ordered to be printed.

Distribution of Working Force.

The total force of the Isthmian Canal Commission, actually at work, at the end of January was 25,367 men, and of the Panama railroad, 6,557 men, or a grand total of 31,924. The employes of the Commission were distributed as follows:

Excavation	11,428	
Locks and dams	3,043	
Total on actual construction		14,471
Buildings	2,003	
Municipal Engineering	1,025	
Mechanical Division	2,074	
Total on contributory construction		5,104
Total all kinds of construction		19,575
Material and Supplies	898	
Labor, Quarters and Subsistence	2,079	
Civil Administration	474	
Sanitation	2,152	
Disbursements	131	
Examiner of Accounts	58	
Total of Administrative Departments		5,792
Grand total of Commission employes		25,367
Panama railroad employes		6,557
Grand total of all employes		31,924

Four and One-Half Million Barrels of Cement.

The Isthmian Canal Commission, through its Washington office, has called for proposals for furnishing 4,500,000 barrels, more or less, of Portland cement for use in the Canal construction. The consumption will be at the rate of about 4,500 barrels per day. The amount of cement to be furnished may, by action of the Commission, be decreased or increased 15 per cent. All proposals will be opened on March 12, and it is expected that deliveries should begin about December 1, 1908. Proposals will be received for furnishing the entire supply, any portion thereof, or one-third of the amount, and for shipping the entire amount in clinker form to a point on the Isthmus designated by the Commission, there to be ground in a mill to be erected, operated and maintained by the contractors. They may also provide for the delivery of the cement on docks at seaports in the United States, and for its transportation in ships of American and foreign register. No member of Congress, or delegate to Congress, or any person in the service of the Government can be admitted to any share of interest in the contract, or to any benefits which may arise therefrom, except as a member of a corporation.

Fuel Oil in Place of Coal.

The Isthmian Canal Commission is about to substitute fuel oil for coal in its various machine shops and power houses and, wherever practicable, under its stationary boilers throughout the Zone. Under the contract with the Union Oil Company of California, that Company is required to furnish crude oil at any convenient point on its pipe line to the Canal Commission, or to the Panama Railroad Company at the rate of 90 cents a barrel. The Company has in operation an 8-inch pipe line across the Isthmus, practically paralleling the Panama railroad main line, with extensive storage tanks at La Boca on the Pacific side, and at Mount Hope on the Atlantic side. The Division of Motive Power and Machinery has formulated a plan for the use of this oil in place of coal, the main features of which are as follows:

A 4-inch pipe line will be connected with the Oil Company's pipe line, and large tanks will be placed some distance above the boilers of the plants in which the fuel is to be used, with a capacity of one month's supply. The oil will be fed by gravity to the furnaces under the boilers, and the quantity consumed will be measured by oil meters. An attempt will be made to heat the air under the stationary boilers previous to its coming into contact with the oil. The burners used will be of two types, one made by the W. N. Best Company, and another designed by the Division of Motive Power and Machinery. The oil will be atomized by coming into contact with a jet of steam at the mouth of the burner.

The supply tanks will be placed at Paraiso, Empire, Las Cascadas and Gorgona, and the Panama railroad will, in the near future, erect a tank with a capacity of 4,000 barrels opposite its machine shop at Cristobal, which will supply the Cristobal shops and the boilers at the ice plant. In order to supply this tank, a 4-inch pipe will be run from the Mount Hope oil pumping station. Fifteen tanks have beeen ordered from the United States with a capacity ranging from 241 to 4,063 barrels. Three of these are now due on the Isthmus and will be installed at Empire, Las Cascadas and Gorgona.

The La Boca electric light plant, which is located near the Pacific storage tanks of the Oil Company, has been using fuel oil for several months with a consumption slightly over three barrels of oil as against a previ-

NOTES OF PROGRESS

(Continued)

ous equivalent consumption of one ton of coal. That is to say, $2.70 worth of oil is doing the work of $6.35 worth of coal, for the coal costs $4.35 per ton plus $2 cost of transportation.

Five oil meters have been ordered, one of 4 gallons capacity, three of 12 gallons and one of 20 gallons. Due care has been taken for the protection of property in the neighborhood of the tanks In case of accident to a tank an adequate drain will carry all oil away from the power plant and neighboring houses. Each tank will be provided with a steel roof so that sparks and cinders from locomotives will not cause an explosion, and vent pipes with outlets covered with wire gauze will be placed at the top of each tank so that accumulated gases can pass off without danger of a flash passing back into the tank in case the gases become ignited. By the first of May it is expected that oil will be used for fuel in large quantities.

Dredging at La Boca.

The maximum daily output by the dredges in the La Boca Dredging Division for the week ending February 8, scow measurement, was as follows: February 7, dredge A-2, 6,796 cubic yards; February 7, dredge 14, 6,351 cubic yards; February 5, *Culebra*, 20,020 cubic yards. The total output of each of the three dredges for the same period was: Dredge A-2, 35,210 cubic yards; dredge 14, 32,438 cubic yards; *Culebra*, 81,772 cubic yards. The combined total for the week was 149,420 cubic yards.

Codification of Zone Laws.

The Acting Chairman of the Commission has appointed a committee consisting of Associate Justice Gudger of the Supreme Court, Prosecuting Attorney Shontz, Senior District Judge Kerdell, and Executive Secretary Reed, to consider the advisability of revising and codifying all existing penal laws of the Canal Zone, including the ordinances of the various municipalities, and in addition, the Civil Code at present in force in the Zone. The committee is directed to recommend in its report the scope of the work to be undertaken to accomplish the desired end.

Canal Zone Revenues.

According to the report of the Auditor for the Government of the Canal Zone for the month of December, 1907, the Canal Zone revenues for that month aggregated $41,421.25, U. S. currency. Of this total, $20,400 was derived from the tax on the sale of liquor at retail, which is payable semi-annually. The remainder, $21,021.25, was derived from monthly taxes or license fees, or from current sales or collections, that do not vary greatly from month to month, except to increase with the growth of population and the commercial and agricultural development of the Canal Zone. Of this $21,021.25, a total of $6,068 42 was realized from money order fees and the sale of postage and may be expended only for the maintenance of the post-office system. Revenue from other sources is available under the Appropriation Act of March 4, 1907, for the payment of contingent expenses of the Government of the Canal Zone aggregating not more that $10,000; for the maintenance of the schools, and for public works in the Canal Zone.

If there is no falling off in collections, the postal revenues during the calendar year 1908, should yield approximately $75,000, and other sources of revenues should yield not less than $230,000 The latter sum should suffice to maintain adequate public schools, construct all needed municipal buildings, install water and sewer mains in the larger native towns, and lay the foundation of a system of roads and trails, which will stimulate the settlement and agricultural development of the Canal Zone.

Highest January Shovel Records.

The records of the highest steam shovels in each class, in each of the four construction districts of the Culebra Division, with the number of the shovel, for the month of January, 1908, consisting of 25 working days, are as follows:

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
BAS OBISPO DISTRICT.			
111	5,623	13,121	18,744
201	5,865	23,459	29,324
216	9,148	21,344	30,492
EMPIRE DISTRICT.			
226	15,616	23,424	39,040
232	13,949	32,547	46,496
CULEBRA DISTRICT.			
122	....	32,323	....
213	....	43,624	....
222	....	45,788	....
PEDRO MIGUEL DISTRICT.			
123	15,262	3,815	19,077
202	36,877	....	....
211	15,944	17,716	33,660
OBISPO DIVERSION.			
121	21,628	19,848	41,476

Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with a dipper capacity of 5 cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

No Employment on the Isthmus.

In spite of the efforts made by the Washington office of the Isthmian Canal Commission to discourage persons from taking passage to the Isthmus in search of employment, the recent commercial depression has resulted in the migration to the Isthmus of a considerable number of unemployed mechanics and clerks. Many of these persons appear to be well qualified for employment, but very few of them can hope to secure appointments with the Isthmian Canal Commission. Reductions of force are being made in the Division of Building Construction and in the Mechanical Division, and these will be carried still further. If new appointments are made to positions in those Divisions, preference will be shown to former employes, who have not yet left the Isthmus. It is extremely improbable that any opportunity will arise for the employment of a carpenter or machinist who may come here voluntarily and without an appointment issued by the Washington office. Reductions are also being made in the Commission's clerical force, and such vacancies as are created are filled by the transfer of employes from other offices in which reductions are practicable. This fact alone, is a bar to the employment of applicants for clerical positions who may present themselves upon the Isthmus, but in any event, the employment of such persons is rendered impossible by the Civil Service rules which apply to all clerical positions paying more than $75 U. S. currency a month.

Americans who come to the Isthmus and fail to secure appointment with the Isthmian Canal Commission can seldom find other employment, as the volume of local business is not large, and the local supply of skilled labor is amply sufficient to meet all demands. Every effort is being made to prevent the emigration from the United States of persons without employment, and the largest publicity will be given to the unfavorable local conditions in order that Americans affected by present labor conditions in the States may be prevented from incurring the expense of coming to the Isthmus.

Steam shovel No. 114, a 70-ton shovel with a bucket capacity of 2½ cubic yards, working at the spillway, Gatun, excavated 42,915 cubic yards during the 26 working days in January, an average of 1,650 cubic yards per day.

CANAL EXPENDITURES.

The following table shows expenditures for Canal work, classified monthly, since July 1, 1907. The figures give only expenditures which have been located. In addition, there have been some disbursements, such as purchasing material, etc., which it will not be possible to locate to a specified account until their use has been finally determined:

Period.	Civil Administration.	Sanitation.	Construction and Engineering.	Municipal Improvements.	Plant Account.	Total.
Prior to Jul 1 1907	$1,419,379.04	$4,533,944 82	$13,265,841.96	$4,084,651.30	$18,493,332.66	$41,797,149.78
July..	51,183 84	149,270 94	962,477.19	146,131 93	580,562.68	1,889,626.58
Aug..	67,548 53	214,018.03	1,196,803.45	192,227.75	767,153.24	2,437,751.00
Sep...	63,239 62	253,108 77	1,194,304 85	107,840 85	1,068,300.58	2,686,794.67
Oct...	53,227.97	189,196.38	1,372,311 81	123,939.88	1,131,450.91	2,870,126.95
Nov..	54,529 02	166,381 82	1,217,120.31	115,625.44	1,105,590.16	2,659,246.75
Dec..	64,903.04	213,725.16	1,369,822.79	125,420 96	591,298.02	2,365,169.97
Tot'l	$1,774,011.06	$5,719,645.92	$20,578,682.36	$4,895,838.11	$23,737,688.25	$56,705,865.70

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Isthmian Civil Service.

THE CANAL RECORD:

In connection with joint circular issued by Chairman of the Isthmian Canal Commission, and President of the Civil Service Commission covering *regulations governing examinations, appointments, transfers and promotions* on the *Isthmus of Panama*, will you kindly advise, through the columns of THE CANAL RECORD, as to the following:

1. Can a timekeeper or time inspector or otherwise unqualified clerical man be placed in a competitive position of clerk or stenographer or bookkeeper, and when next Civil Service examination is held, take the examination, and if he passes, can he still hold that clerical position, or must he be placed on the eligible list at Washington, go back to his former position of timekeeper, time inspector, etc., and await his turn for a position as clerk, stenographer or whatever classified examination he has taken?

2. Suppose a man comes to the Isthmus as time inspector, timekeeper, policeman, or some other position, outside classified service, puts in, say, two years or so at that kind of work, and in the meantime has passed the Civil Service examination and receives a position in the classified service, can he transfer back to the States to a classified position there at the expiration of three years' service?

3. Under the new regulations, what is the status of a clerk or stenographer, or other employe in the classified service, who did not take the Civil Service examination in the States, previous to his coming to the Isthmus, since January 1, 1906, being merely certified before the Civil Service Commission at Washington as being qualified to hold a position here, and has never yet passed an examination, being exempt from such examination by said qualification,—can such an employe transfer back to the classified States service?

AN EMPLOYE.

Empire, Feb. 7.

[1. An employe occupying an unclassified position may be transferred temporarily to a classified position, either where an emergency requires a vacancy to be filled before an appointment can be made from the Register of Eligibles, or where the work is temporary in character and the services of the employe will not be required after its completion. In the one case, the employe should be removed from the classified position as soon as a substitute can be secured from the Register, and in the other case, the services of the employe should be discontinued upon the completion of the temporary work upon which he is engaged. The fact that an employe temporarily appointed to a classified position enters and passes a competitive examination does not warrant the extension of his employment in the classified position.

2. It is the understanding of the Local Civil Service Board that the clause in paragraph 4 of Section IV of the Regulations, wherein it is provided that "Other persons whose transfers are not prohibited may be transferred to the United States after three years' service on the Isthmus," is to be interpreted as meaning three years' service in a classified position.

3. An employe appointed to a classified position without examination, even though with the approval of the United States Civil Service Commission, is not eligible for transfer to the United States.]

Issue of Coupon Books.

THE CANAL RECORD:

Will you please advise, through the columns of THE CANAL RECORD, the exact meaning or intention of the Acting Chairman's circular to all concerned, dated December 13, regarding dates between which hotel and commissary books may be issued.

In the forepart of the third paragraph it states "books may be issued to employes at any time after the fifth day of the month, etc." The next sentence of same paragraph reads "No books will be issued to any one before the 5th or after the 27th of any month, etc." Judging from the last quotation it was intended that the first quotation should include the fifth day, but on account of time keepers of several divisions making different interpretations, there is a question as to whether books may be issued on the 5th or 6th, regardless of the question as to sufficient amount having been earned.

EMPLOYE.

Empire, Feb. 5.

Replying to above, coupon books may be issued from the 5th to the 27th of the month, *inclusive*.

D. D. GAILLARD,
Acting Chairman, and Chief Engineer.

Culebra, Feb. 7.

Reduction of Pay.

THE CANAL RECORD.

In reference to the proposed reduction of Commission pay, which has been under discussion for some time, I beg to offer the opinion that a general cut in salaries would be manifestly unjust and almost a breach of good faith on the part of the Isthmian Canal Commission, besides being contrary to the sentiments expressed by President Roosevelt on his visit to the Isthmus, a visit which was well timed to show him the the climatic conditions with which we had to contend.

When I came to the Isthmus health conditions were such that a man coming here practically risked his life, yellow fever, malaria, Chagres fever, and even bubonic plague were rampant; then too, we had to put up with the hardship of inadequate and poor accommodation when it was a common thing for four men to occupy one small room.

Now these conditions no longer prevail, and as is claimed, help can easily be obtained from the United States, is it quite fair to forget the old men and what they suffered? and, classing them with the late arrivals who did not come to the Isthmus until assured of healthy conditions and proper accommodation, ignore the inducements which were offered them to leave good positions at their homes and come to the Zone. I think it is no more than fair to say that the ultimate success of the Canal will be due principally to the men who came down when they had to rough it and so prepared the way for the present workers.

Trusting that in the interests of the old timers you will find space for this letter in your valued paper,

Empire, Feb. 7. T. E. F.

American Farms in the Canal Zone.

THE CANAL RECORD:

I have talked with a great many employes of the I. C. C., and P. R. R. Co., in regard to the suggestions made by Mr J. C. Kiernan of Cristobal, concerning the disposition of several thousand acres of Government land in the Canal Zone.

They all coincide heartily with the idea. Make the time a number of years, say five, and give men thirty acres in freehold. It will be an additional object to work for, besides the "great work" that we are now accomplishing.

NUNES NUNN,
P. R. R. Employe.

THE CANAL RECORD:

Having read the article on "American Farms on the Zone," I venture to say that its author, Mr. J. C. Kiernan, has a capital idea, and the proposition should by all means meet with due consideration and approval by the Isthmian Canal Commission.

It is an assured fact that there are a large number of men engaged along the line who would gladly homestead and till some of this virgin soil were there an American colony established, and this would as we all know, benefit our Government in both peace and war. I do not know of any part of this wide world that has a brighter future than has the Canal Zone, owing to a ready home market and assured transportation to all parts of the world. Let us hope that in the near future we may hear from higher quarters on this subject, which would be a move in the right direction.

J. MILLER.

Paraiso, Feb. 3.

Hounds for Criminals.

THE CANAL RECORD:

I would like to offer the following suggestion, viz: That the Isthmian Canal Commission import a few pure bred bloodhounds, to be used for the purpose of tracking murderers or any other class of criminals who take to the jungle after committing a crime.

The authorities in my native state of Tennessee adopted this method in certain parts of the state years ago and still use it. They use them for recapturing escaped convicts and also in detecting the perpetrator of some heinous crime whose identity is unknown. A good hound rarely fails to uncover his quarry provided the scent is not too cold. I do not own any dogs but merely offer this as a suggestion.

AN EMPLOYE.

Empire, Feb. 7, 1908.

[Two full-blooded Cuban-Texas bloodhounds arrived on the United Fruit Company's steamer from New Orleans on Friday February 7, and were sent immediately to the warden of the penetentiary at Culebra. They will be used by the Zone Police Department for the tracking of criminals.]

SOCIAL LIFE OF THE ZONE.

Preparations Being Made for Dances During February.

The Ancon Woman's Club held its regular meeting February 5, with the first vice-president, Mrs. J. M. Maguire in the chair. After a short business meeting, a paper on club intention and ideals was read by Mrs. Bennett. During the social half-hour that followed tea was served and Mrs. Ruggles sang several selections. Mrs. Sydney Higgins and Mrs. Andrews acted as ushers. Miss Russell, the treasurer of the club has returned from her vacation. The flower dance to be given February 29 is occupying the attention of a large committee. The next meeting will be social one and will be held on February 19 at 3 o'clock.

The meeting of the Cristobal club on February 5 was in the nature of a reception to Mrs. Herbert G. Squiers, who was introduced by the president, Mrs. Lorin C. Collins, and told the story of the siege of Peking. The club room was decorated with flowers and hung with flags for the occasion. Tea was served at small tables by the members of the social committee.

The Pedro Miguel club is arranging to give a Colonial dance on Washington's Birthday. The next business meeting of the club will take place February 12.

The Empire club held its business meeting February 6, the president presiding. The club has adopted orange and blue for the club colors. A special study of parliamentary law is being taken up under Mrs. S. E. Ball and instruction by her is a regular part of each meeting.

The Culebra club met February 6, the vice president, Mrs. Murray in the chair. The program for the afternoon was a debate on "What to Do with the Children after School Hours," led by Mrs. Sumner Coolidge, assisted by Mrs. Byram, Mrs. Moore and Mrs. Perry. The club is arranging a dance for St. Valentine's Day, Mrs. Pullen being in charge of the committees. The club took action on the resignation of the president, Mrs. Wm. L. Sibert, who will remain an active member of the club but who feels that she can not give the time to the work involved in the holding of office. A committee was appointed to consider the matter and to report on names of members qualified for the office. Action was taken toward procuring sand piles for the smaller children in various parts of the city.

The ladies of Culebra have selected the second and fourth Wednesdays of each month as their regular "at home" days.

The Gorgona club will hold its regular meeting February 13.

The Paraiso club held a social meeting February 6. The program consisted of several musical numbers by Mrs. W. Downs, a paper on "Worries" read by Mrs. M. E. Heath, and an art catalogue contest in which the prizes were won by Mrs. Kirk and Mrs. McCauley. The president of the club, Mrs. J. C. Barnett, and Mrs. E. B. Healey had charge of the program. There was an unusually large attendance.

The Las Cascadas club held a business meeting with election of officers to serve for the next six months, the president, Mrs. Randall presiding. The club completed its organization by the adoption of a constitution and the appointment of various members to serve on the departmental work. The following officers were elected: President, Mrs. W. D. Stanton; first vice president, Mrs. M. V. Lynn; second vice president, Mrs. W. D. Drysdale; secretary, Mrs. M. V. Enright; treasurer, Mrs. G. S. Lingle. The following committees were appointed: School visiting, Mrs. J. E. Albrecht; philanthropy, Mrs. W. D. Drysdale; home or visiting, Mrs. W. J. Lynn, Mrs. E. H. Thompson and Mrs. J. E. Martin; social work, Mrs. C. R. Lingo, Mrs. W. D Stanton, Mrs. J. E. Albrecht and Mrs C. R. Thorne. Light blue was adopted for the club colors, and Mrs. F. E. Dorson and Mrs. W. L. Kaiser were appointed to submit designs for the badges. Mrs. O. G. Randall, the retiring president, will leave about March 1 for an extended visit to her home in the States.

The Pearl Island Trip.

For the trip to Pearl Islands on Sunday, February 16, the Ancon Amusement Association has secured the steamship *Aysan*, one of the newest ships of the Compañía Sud-Americana de Vapores, practically a sister ship to the steamship *Huasco*, one of the finest ships running on the South Pacific coast. It is of about 5,000 tonnage.

Junior Order and D. of A.

The Canal Record:

The Junior Order and D. of A. Club will hold a meeting in Cristobal lodge, Sunday, February 16, 1908, at 2:30 p. m., to make arrangements for decorating all graves of Americans in Ancon cemetery on Decoration Day, May 30. All members of either order are requested to attend.

J. Frank Houston,
Secretary.

Gatun, C. Z., Jan. 30.

Regular Army and Navy Union.

The Canal Record:

Regular Army and Navy Union, U. S. A., Attention.—Birt S. Sturdevant Garrison No. 41, R. A. and N. U., U. S. A., meets in the Lodge Hall, Culebra, C. Z., on the first and third Thursdays of each month at 8 p. m. Visiting members always welcome.

Alvin Colburn,
Adjutant.

Culebra, Jan. 30.

Sojourners Lodges.

The Canal Record:

Sojourners Lodge No. 874, A. F. and A. M., will meet at its hall in Colon on Saturday evening, February 15, at 7:30 p. m. in Ordinary Communication. Masons in good standing are fraternally invited to be present.

John Lagerquist,
Secretary.

Colon, Feb. 10.

The Canal Record:

The Paraiso Sojourners Club charter is being held open for thirty days and all Master Masons are invited to join us. The next regular meeting Friday, February 14, 1908, will be held at Pedro Miguel.

H. C. Ragsdale,
Secretary.

Paraiso, Feb. 10.

The steamship *Sakkarah* arrived at La Boca February 10, with a cargo consisting of 18,000 sacks of flour and 5,589 bags of oats for the Isthmian Canal Commission; 15,000 sacks of coffee billed through to Atlantic ports, and 140 tons of oriental goods.

PERSONAL.

Colonel Goethals will return to the Isthmus, if his engagement in the States will permit, on the *Colon* which sails from New York on February 15. It is possible that he may be delayed till the sailing of the *Advance* on February 20. Commissioner Blackburn will sail for the Isthmus, from New York, on the *Panama* on February 25.

Samuel G. Blythe, of Washington, the well known writer on political matters for various publications in the States, spent the past week on the Isthmus gathering material for some articles for the *Saturday Evening Post*, of Philadelphia, on the social side of life on the Isthmus, with special attention to the ways of living and recreation among the employes of the Commission.

Mr. C. J. Hicks, Associate General Secretary of the International Committee of the Y. M. C. A., arrived at Cristobal on the *Panama*, February 6, for a short visit on the Isthmus. Among the other passengers returning to the Isthmus on the *Panama* was M. J. Stickel, secretary of the Y. M. C. A. at Cristobal.

Mr. C. M. Gifford, assistant secretary of the Y. M. C. A. at Empire, arrived on the *Panama* February 5. A smoker was given in his honor at the Commission club house, Empire on Friday evening, February 7, which was largely attended.

Miss Emma Gudger, accompanied by her friend, Miss Lalage Oates, who have spent the last two months on the Isthmus, sailed for the States on the *Panama* which left Cristobal on February 12.

Mr. J. C. Parsons, Secretary to Commissioner H. H. Rousseau, sailed on the *Panama* February 12, for a six weeks' vacation in the States.

Clearing Trails.

Bids were opened on February 3 for clearing the Arraijan-Pedro Miguel and Arraijan-Culebra trails by contract. Two bids were received, one of Ramiro Arango R., of Panama, at $825 U. S. currency, and one of Leolake Guarino, at $15,000 U. S. currency. Mr. Arango's bid was accepted and a contract has been made with him. The trails are to be cleared of all brush, cane, grass, poles and trees of a diameter not exceeding one foot, to a width of twenty feet throughout; the material removed from the trails to be destroyed by burning, or piled beyond the clearing. Mr. Arango cleared some Zone trails last year under a similar contract.

Rebekah Club.

The Canal Record:

The Isthmian Canal Rebekah Club will meet in the lodge hall, Gorgona, every Saturday evening at 7:30. All those eligible to membership are cordially invited to attend.

Mrs. M. B. George,
Secretary, pro. tem.

Gorgona, C. Z.

Burnett Court I. O. P. K.

The Canal Record:

Burnett Court No. 3, Independent Order of Panamanian Kangaroos of Gorgona, will give a dance at their hall on the evening of February 21, to which all Kangaroos and their ladies are cordially invited.

Lyman E. Carle.

Gorgona, Feb. 10, 1903.

HEALTH REPORT FOR JANUARY.

Excellent Health Conditions.

To the Acting Chairman, Isthmian Canal Commission, Culebra, C. Z.

Sir: I herewith forward report of the Sanitary Department for the month of January, 1908.

The body of the report will show health conditions to be excellent.

For the first time there has been a considerable decrease in the numbers on our rolls. In December it was 45,715; in January 43,390, a decrease of over 2,000.

There has been a considerable dropping off in the death rate of employes. In December it being 18.11; in January 12.72. The most marked thing is the decrease in the death rate among the negroes. It is very little larger than among the whites. This is very unusual in our rates.

Comparing January, 1907, and January, 1908, we find we had in January, 1907, 8,303 white employes with 9 deaths, giving us a rate of 13.01 per thousand, and for January, 1908, 11,496 white employes with 11 deaths, giving us a rate of 11.48 per thousand.

Taking the blacks, we had in January, 1907, 23,548 employes, with 59 deaths, giving us a yearly rate of 30.06 per thousand. For January, 1908, with 31,894 employes, we had 35 deaths, giving us a yearly rate of 13.16 per thousand, less than half that of the preceding year.

Taking the total of blacks and whites, we had in 1907, 31,851 employes, giving us 68 deaths, and a yearly rate of 25.62 per thousand. In January, 1908, we had 43,390 employes, with 46 deaths, giving us a yearly rate of 12.72 per thousand, less than half that of the preceding year.

Take the city of Panama. In 1907, the population was 30,489, with 105 deaths, giving us an annual rate of 41.93 per thousand. In 1908, the population was 35,668, giving us 112 deaths, and an annual rate of 37.68, an improvement of over 3 per thousand.

In Colon, in January, 1907, we had a population of 13,596, with 53 deaths, giving us a yearly rate of 46.78 per thousand. In January, 1908, we had a population of 15,273, with 38 deaths, giving us an annual rate of 29.85 per thousand, an improvement of 12 per thousand.

In the Canal Zone, in January, 1907, we had a population of 45,089, with 103 deaths, giving us an annual rate of 27.41 per thousand. In January, 1908, we had a population of 61,121, with 99 deaths, giving us an annual rate of 19.43 per thousand, an improvement of 8 per thousand.

The total population in January, 1907, was 89,174, with 261 deaths, giving us an annual rate of 35.12 per thousand. In January, 1908, the total population was 112,062, with 249 deaths, giving us an annual rate of 26.66 per thousand, an improvement of over 9 per thousand. So you see there has been an improvement all along the line.

The death rate of our employes, 12.72 per thousand is less than half of that of the population at large, 26.66 per thousand. Part of this difference is, of course, due to the fact that in the population at large women and children are included.

Our statistics show a decided improvement all along. In January, 1906, we had 22,000 employes, with 74 deaths, giving us an annual death rate of 40.36 per thousand; the next year, January, 1907, we had 31,851 employes, with 68 deaths, giving us an annual death rate of 25.62 per thousand; and the next year, January, 1908, we had 43,390 employes with 46 deaths, giving us an annual death rate of 12.72 per thousand. That is, the death rate among the employes is less than one third (⅓) what it was two years ago.

The improvement in the rate of the total population in the same time has not been so great, but is very marked. In January, 1906, we had a total population of 46,249 with 178 deaths, giving us an annual rate of 46.18 per thousand. The following year, January, 1907, we had a total population of 89,174, with 261 deaths, giving us an an annual rate of 35.12 per thousand. The next year, January, 1908, we had a total population of 112,062, with 249 deaths, giving us an annual death rate of 26.66 per thousand; that is, in two years the annual rate had fallen just 20 per thousand.

Taking individual diseases the showing is equally good. I think probably the best measure of our sanitary work is the amount of malaria we have. In January, 1907, we admitted to our hospitals 1,813 cases of malaria from 31,851 men. In January, 1908, we admitted to our hospitals 642 cases from 43,390 men; that is, with a force of 12,000 more men we had in our hospitals about one-third the number of cases of malaria. The amount of malaria therefore, in the force for January, 1908, is about one-fifth what it was for January, 1907.

Considering the total sick rate, we make an equally good showing. For January, 1907, taking every one thousand of our employes, we had 26 sick every day. For January, 1908, we had only 19 sick daily for the same number; that is, in January, 1908, we had 7 more men working every day out of every thousand employes, than we had in January 1907.

We have occupying Commission quarters 6,300 American men, women and children. Among these we had only one death during the month, which would give us an annual rate of a little less than 2 per thousand.

Yellow fever continues to be present in the countries around us with which we have commercial relations, but no case occurred on the Zone during the month, nor has any case occurred since May, 1906. Plague is prevalent north and south of us on the Pacific coast, but none occurred on the Zone during the month, nor have we had any case since 1905.

Very respectfully yours,

(Sgd.) Wm. C. Gorgas,
Chief Sanitary Officer.

GENERAL SANITATION—CITY OF PANAMA.

All the features of the work of sanitation progress satisfactorily, and the general condition of the city is good. Notwithstanding the dry season prevailing, when mosquito propagation is at its minimum, the work of prevention continues unrelaxed.

The general health of the city is excellent. During the month there were 112 deaths, 30 of which occurred in Santo Tomas hospital, and 72 in the city. No acute contagious diseases were reported, and no one disease was especially noticeable. The greatest number of deaths from any one disease was from tuberculosis, fifteen persons having died from this cause.

COLON, CRISTOBAL AND MOUNT HOPE.

The number of cases reported by the medical inspectors for Colon were slightly less than for the previous month. A complete house-to-house inspection was made covering a period of seven days and only fifty-one cases of illness were found, and as shown in the report they consisted of cases of more or less chronic nature.

There was very little sickness among the crews of the vessels that lay at dock No. 14 during the month, and a number of boats had been here previously and inquiries were made among the masters, and they reported that the health conditions of the men while away from this port were very good, and decidedly better than formerly.

Seven of the cases of amoebic dysentery reported from Colon hospital were in persons who gave Colon as their place of residence, and more than half of this number were from the section of Colon in which the sanitary improvements have not been completed, that is, D street and Hudson Lane.

It will be noted that a large number of night soil buckets were retired during the month and this action was taken only after observing conditions for ten days, and where buckets not in active service were found they were immediately retired. The number of tanks remaining have been reduced to nine, and these will be removed as soon as necessary connections with the water mains can be made.

Thirty-one houses were condemned as being unfit to live in in their present state, but which could be made habitable by repairs. The majority of these houses were flat upon the ground and in many cases earth was used for a floor. These houses all had condemnation notices placed on them and a reasonable time given in which to either vacate or make the necessary repairs. Only one house was demolished and this with the consent of the owner.

The report shows fewer connections with the water and sewer mains for the month, than for December. About the middle of the month two of the leading plumbing firms amalgamated and their schedule does not seem to be in accordance with the opinion of the journeymen plumbers in the city, and the only work accomplished was by two individual plumbers who completed some unfinished work.

At Mount Hope, the work on swamp No. 2 is progressing satisfactory and the drains now started will be completed in about two weeks, and then the swamp will be well drained and at high tide it will be fairly well permeated by salt water. A number of new tanks have been placed in service at Mount Hope, being distributed throughout the lumber yard, and on account, the report shows an increased number of tanks oiled during the month.

The work in Cristobal is progressing satisfactory; the streets are sprinkled daily, and a systematic examination is carried on for breaks in the screening.

SANITATION—CANAL ZONE.

The drainage work is progressing in a satisfactory manner and shipments of drainage tile were received toward the end of the month. At the present time attention is being concentrated on the work in the vicinity of Ancon, Corozal, Culebra, Las Cascadas and Gatun, so as to be ready to cope with the local difficulties that have existed in those districts during past wet seasons. An inspection has been made covering the vicinity of Porto Bello, which has a much higher malarial sick rate than similar laborer's camps in the Canal Zone, and it is thought that the proposed anti-malarial work soon to be accomplished will reduce malarial infection at Porto Bello very considerably.

At Las Cascadas, the entire area that formerly furnished the anopheles breeding places near the American settlement is now being sub-drained, and also permanent stone ditches have been made near White House camp.

The general health conditions throughout the Zone are good and the total sick rate among all employes is about the same as last month. The progress of the anti-malarial work is very satisfactory. During January, 1908, there was a reduction of 75 per cent. in hospital malarial cases, as compared with the malarial rate for January, 1907. Moreover, during each of the past eight weeks the malarial rate has been very low. The lowest weekly malarial sick rate recorded during the dry season of 1907 is much above the average for the past eight weeks.

January Police Report.

The January report of the Chief of Police of the Canal Zone shows an increase in the number of arrests during the month, 522 having been made in January against 460 in December. There were 157 prisoners in the district jails on January 31, an increase of 33 for the month. The coroner held inquest in 7 cases of accidental deaths. The number of convicts at the Zone penitentiary on January 31 was 86, a decrease of two for the month. The value of work performed by the convicts on roads, etc., was $1,248.10.

The total effective police force on January 31 was 152, and the pay-roll for January amounted to $15,880.83.

Civil Service Examination.

A Civil Service examination for the position of clerk in the service of the Isthmian Canal Commission upon the Isthmus, will be held at Ancon, C. Z., on Sunday, March 15. Application forms and all necessary information may be obtained from John K. Baxter, Secretary, Isthmian Civil Service Board, Ancon, C. Z.

Mr. H. F. Chandler, a representative of a detective agency of St. Paul, Minn , arrived on the Isthmus on February 5 in search of John Cosgrove, a fugitive from justice, who is wanted by the authorities of Spooner, Wis., on charges of embezzlement and forgery in the sum of $16,000. At his request a detective of the Zone was detailed to assist him in his search. Cosgrove was discovered on February 6. He was employed as a flagman on a Commission dirt train at Las Cascadas. He admitted his identity, waived extradition, and agreed to accompany the detective back to the United States to stand trial on the charges against him. He sailed with the detective on the *Advance* on February 7.

ITALIAN LABORERS CONTENTED

Favorable Report from the Italian Consul at Colon.

[From the *Adviser of the Emigrant* (Rome), October 1, 1907.]

In a series of articles the *Gazzetta del Popolo* has published the impressions transmitted to the Ministry of Foreign Affairs by Dr. Alfonso Lomonaco, holding the Italian Consulate in Colon. These impressions are very reassuring and comforting. Very few of the laborers in the service on the Canal Zone have found reason to complain of the too hard or too prolonged work; the great sleeping rooms are always kept in a very excellent condition. In the kitchens where the Italian laborers are not in the majority, we do not always find an Italian cook, but this defect, the most regrettable, has always been eliminated when complaint is brought to the proper authorities. The food, to which Dr. Lomonaco has given particular and rigorous attention, was always found to be good, healthful and abundant. These are the general observations made in the camps at Corozal, Cucaracha, Juan Grande and Gatun, where inspections have been made very often and without preliminary notice.

I am taking a few lines from the *Gazzetta del Popolo* after the description of the mess hall at Gorgona: "Now, why should not Panama be—I do not mean a fabulous Eldorado—but a good field adapted to the development of the activity of our countrymen where the labor is well paid, the climate mild, and the treatment humane?"

Yellow fever and beri-beri do not dominate there as in Brazil, which every year decimate the population. On the coast the average annual temperature varies between 26 and 27 degrees centigrade; the maximum variation does not exceed 14 degrees during the different seasons of the year.

From the report of the Department of Sanitation for the month of September, 1907, we find that in this month, (one of the most rainy months in that region), among 11,662 white men employed on the work there were 25 deaths; that means, 25.72 per thousand per annum; among 29,400 colored men, 73 deaths; that means an annual percentage of 29.79 per thousand This mortality in a population composed almost entirely of laborers not always temperate or careful of their health can not be said to be very impressive considering that in our most healthy Italian cities the annual mortality varies between 22 or 23 per thousand inhabitants.

In addition to the excavation work at present, it should be remembered that this country is destined to become the commercial highway of transit between the east and north, and presents to the colonizer great riches in its agriculture and in the innumerable resources of a country on the verge of passing to another state of civilization.

It would be an unpardonable mistake on the part of men in authority and initiative to fail to notice geographical elements and statistics of so much importance pointed out by observers whose words can not be doubted. Unfortunately we know villages and countries where mouths are too numerous compared with the means of subsistence, where there are too many arms that require work. These should betake themselves to vast regions not cultivated, and sparse in population, such as Panama, which has but four thousand inhabitants to every square kilometer of its rich soil!

As the Italian emigration is a phenomenon that interests not only our public economy, but also that of the countries to which it is directed, let us send it where work is in full progress and where great natural riches lay untouched, simply because the industrial direction of man is needed.

OFFICIAL CIRCULARS.

Official Photographs.

CIRCULAR NO. 156.

All photographs for official purposes will be issued by the Office Engineer, Culebra, and certain authorized photographs will be sold at twenty cents gold each, to employes of the Isthmian Canal Commission and Panama railroad.

All requests for photographs will be made in writing to the Office Engineer, who will authorize or disapprove the issue or sale of such photographs, in accordance with instructions of the Chairman of the Commission.

Photographs requested and approved for official issue will be forwarded by the Office Engineer to their destinations.

Copies of blue prints will be sold at fifty cents gold each, on request approved by the Chairman.

Photographs and blue prints requested and approved for sale will be delivered by the Office Engineer on payment of the full charge.

D. D. GAILLARD,
Acting Chairman,
and Chief Engineer.

Culebra, C. Z., Feb, 8, 1908.

Watchmen.

TO HEADS OF DEPARTMENTS AND DIVISIONS:

The penalty to be imposed upon watchmen for absence from post or sleeping on duty is dismissal with objections to re-employment for one year. Heads of Departments and Divisions will see that this is understood by all watchmen and enforced.

In addition to such steps as may be taken by Heads of Divisions to discover any laxity among night watchmen, the Chief of Police will instruct his officers, as a portion of their regular duties, to observe the work of watchmen and report promptly any cases discovered by them, where a watchman has been found absent from, or asleep on duty. In the latter case they are authorized to take up the badge or lantern of the watchman as evidence, to be returned next day, upon the request of the proper official. One copy of these reports will be forwarded to the office of the Chairman and one copy to the Head of Division in which the watchman is employed, who will take proper action in the premises.

D. D. GAILLARD,
Acting Chairman
and Chief Engineer.

Culebra, C. Z., Feb. 6, 1908.

Retaining Star Checks.

Empire, C. Z., Dec. 27, 1907.

Circular No. 19-A.

TO ALL CONCERNED:

Star checks issued to employes of the Isthmian Canal Commission, other than contract laborers, should be retained by them so long as they remain in the service, regardless of the fact that they are transferred from one division to another. Only in case of termination of service should the brass check be taken up, and it could then be re-issued as needed.

Respectfully,
(Sgd.) M. C. GAY,
Disbursing Officer.

Approved:
(Sgd.) D. D. GAILLARD,
Acting Chairman,
and Chief Engineer.

The steamship *Minerva* sailed from Puget Sound January 28 with a miscellaneous cargo of lumber for the Isthmian Canal Commission and Panama railroad, and should arrive at La Boca about February 20.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending February 3:		Price cts
FRESH MEATS.		
Beef—Sirloin roast	per lb	25
Rump roast	do	25
Porterhouse	do	25
Rib-roast, short-cut, (not under 3½ pounds	do	18
Rib-roast, second cut	do	15
Chuck-roast	do	12
Soup	do	6
Stew	do	10
Corned	do	10, 12 14
Suet	do	6
Steaks—Sirloin	do	25
Porterhouse	do	25
Rump	do	25
Tenderloin	do	25
Round	do	14
Veal—Cutlets	do	21
Short-cut chops	do	20
Loin	do	13
Entire forequarters	do	9
For stewing	do	9
Mutton—Entire forequarters	do	9
Short-cut chops	do	18
Leg	do	14
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	28
Legs	do	18
Pork—Cuts	do	20
MISCELLANEOUS.		
Livers—Beef	per lb...	9
Calf	each...	60
Sausage—Pork	per lb...	16
Bologna	do	15
Frankfurter	do	15
Lieberwurst	do	15
Sweet bread--Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Oysters—½-gallon kegs	each...	70
Pigs' tongues	per lb...	12
Pigs' feet	do	8
Ox tongues	each...	90
POULTRY AND GAME.		
Chickens, dressed (milk-fed),	each...	1.15
Fowls	do	90
Ducks, fatted	do	1.05
Ducks, dressed	do	90
Turkeys (12 to 18 pounds)	per lb...	*25
Broilers (chicken frys)	each...	*65
Squabs	do	35
Eggs, fresh	per doz...	*36
CURED MEATS AND LARD.		
Bacon—Strips	per lb...	23
English breakfast, sliced..	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45
DAIRY PRODUCTS.		
Butter—prints, prime quality	per lb...	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	30
Gouda	do	30
Camembert	do	28
Edam	each...	90
McLaren's	jar...	10, 15
Milk	quart...	15
FRUITS AND VEGETABLES.		
Tangerines	each...	2
Pineapples	each ..	20
Limes	per hun...	36
Bananas	per doz...	5
Cranberries	per lb...	10
Grape Fruit	each...	2½
Apples	per lb...	5½
Apples, fancy table	per lb...	8
Beets	per lb...	5
Oranges	per doz...	10
Tomatoes	per lb...	*8
Grapes	do	14
Spinach	do	*13
Lettuce	do	14
Celery	bunch...	18
Cucumbers	per lb...	28
White potatoes	do	2½
Cabbage	do	2½
Turnips, yellow and white	do	*2½
Lemons	per doz...	25
Onions	per lb...	3½
Cauliflower	do	*6
Sauerkraut	do	3½
Parsnips	do	*6
Plantains	per doz...	12
Squash, summer	do	5
Carrots	per lb...	4½
Sweet potatoes	do	*2½
Egg Plant	do	9
Parsley	do	18
Yams	do	2½
Young onions	do	8

NEW ARTICLES		Price. CTS.
Rollers, towel, No. 30, stock No. 38,721	each...	12
Sewing cotton, Clark's, stock No. 38,589	spool...	5
Chiffon, stock No. 38,594	yard...	32
Ribbon, baby satin, stock No. 38,595	do	1½
Ribbon, taffeta, stock No. 38,596.	do	2
Ribbon, taffeta, stock No. 38,598.	do	4½
Ribbon, taffeta, stock No. 38,611.	do	9
Ribbon, satin, stock No. 38,612 ...	do	13½
Ribbon, satin, stock No. 38,613 ...	do	16
Ribbon, satin, stock No. 38,614 ...	do	18½
Hosiery, children's, cotton, stock No. 38,622	per pair..	17
Towels, huck, 19x37, stock No. 38,625	each...	12
Quilts, cotton, 74x86, stock No. 38,626	do	1.25
Quilts, cotton, 80x90, stock No. 38,627	do	1.40
Quilts, cotton, 72x84, stock No. 38,628	do	1.20
Kimonos, stock No. 38,629	do	50
Buttons, pearl, stock No. 38,631..	do	13
Buttons, pearl, stock No. 38,632..	do	6
Coats, khaki, stock No. 38,635	do	1.90
Pants, khaki, stock No. 38,636	pair...	1.35
Gauntlets, tan, "Salamander." stock No. 38,651	do	1.10
Vaseline, white, perfumed, stock No. 38,665	bottle...	12
Muslin, bleached, "Summer Day," stock No. 38,666	yard...	9
Sheeting, bleached, "Pequot," stock No 38,667	do	40
Sheets, Mohawk, 72x90, stock No. 38,668	each...	80
Cases, pillow, stock No. 38,682....	do	21
Muslin, "Fruit of the Loom," stock No. 38,683	yard...	15
Muslin, masconned. stock No. 38,684	do	12
Percale, Gibraltar, stock No. 38,688	do	11
Curtains. cotton, ruffled, stock No. 38,696	pair...	1.40
Curtains, cotton, ruffled, stock No. 38,697	do	70
Curtains, cotton, ruffled, stock No. 38,698	do	55
Curtains, cotton, ruffled, stock No. 38,711	do	1.20
Silkateen, cotton, printed. 36-in., stock No. 38,712	yard...	14
Silkateen, cotton, printed, stock No. 38,713	do	11
Parasols. stock No. 38,722	each...	1.25
Parasols, stock No. 38,723	do	1.60
Pins, in cubes, stock No. 38,724....	carton	55
Pins, Miller Book, stock No. 38,725	book...	7
Hair pins, horn, stock No. 38,726.	doz...	40
Hair pins, horn, stock No. 38,727.	do	28
Sticks, Hoff, stock No. 38,728	each...	1
Hair pins, Louise, stock No. 38,729	dozen...	42
Handkerchiefs, Middlesex, turkey red, stock No. 38,739	each...	6
Collars. men's, waterproof, stock No. 38,741	dozen...	18
Chambray, imperial cotton, stock No. 38,742	yard...	18
Henrietta cotton, stock No. 38,743	do	18
Batiste, cotton glace, stock No. 38,744	do	22
Brilliant, cotton, sparkle, stock No. 38,745	do	22
Seersucker, cotton, Amoskeag, stock No. 38,747	do	13
Madras Raye, cotton, stock No, 38,746	do	15
Embroidery, cotton, lattice, stock No. 38,748	do	27
Embroidery, cotton silk, Marguerite, stock No. 38,749	do	22
Lace, Valenciennes, stock No. 38,751	do	2½
Lace, Valenciennes, stock No. 38,753	do	4½
Lace, Valenciennes, stock No. 38,755	do	8½
Lace, Valenciennes, stock No. 38,756	do	10
Lace, Valenciennes, stock No. 38,757	do	13
Lace; Valenciennes, stock No. 38,761	do	18½
Lace, Valenciennes, stock No 38,763	do	15
Insertion, stock No. 38,765	do	3½
Insertion, stock No. 38,767	do	5½
Insertion, stock No. 38,768	do	7
Insertion, stock No. 38,769	do	10
Insertion, stock No. 38,774	do	12½
Edging, stock No. 38,777	do	3
Edging, stock No. 38,781	do	5
Edging, stock No. 38,783	do	2½
Beading, stock No. 38,788	do	1½
Beading, stock No· 38,789	do	2½
Beading, stock No. 38,791	do	6
Beading, stock No. 38,792	do	7½
Lace, Mechlin, stock No. 38,793...	do	4½
Lace, Mechlin, stock No. 38,794...	do	13½
Lace, Mechlin, stock No. 38,795...	do	8
Lace, Mechlin, stock No. 38,796...	yard...	10
Lace, Mechlin, stock No. 38,798...	do	6½
Lace, Maltese, stock No. 38,803...	do	20½
Lace, Maltese, stock No. 38,802...	do	6
Lace, Maltese, stock No. 38,804...	do	14½
Lace, Maltese, stock No. 38,806...	do	9
Lace, Maltese, stock No. 38,807...	do	20
Towels, bleached, Turkish, stock No. 38,809	each...	20
Undershirts, cellular, stock No. 38,813	each...	70
Undershirts, cellular, stock No. 38,815	do	80
Undershirts, cellular, stock No. 38,816	do	85
Roach food, Peterman's	per lb...	36
Pluto water, quarts	bottle...	35
Beans, French, Haricot's, extra fine	per tin...	10
Tomatoes, French	do	15
Beans, French, Haricot's, vert	do	12
Sardines, club, French	do	9
Cheese, Brie	do	30
Cheese, Camembert	do	30
Cheese, Roquefort	do	30
Cheese, Neufchatel	do	30
Tobacco, Smith's Glasgow Mixture	½-lb tin...	36
Trays, oval, Japan, 18-in., stock No. 38,855	each...	12
Trays, oval, Japan, 14 in., stock No. 38,856	do	7
Trays, oval, Japan, 28-in., stock No. 38,859	do	56
Cups, enamel, ½-pint, stock No. 38,858	do	5
Freezers, ice cream, White Mountain, 1-qt., stock No. 38,863	do	1.50
Freezers, ice cream, White Mountain, 2-qt., stock No. 38,864	do	1.95
Freezers, ice cream, White Mountain, 3-qt , stock No 38,865	do	2.25
Freezers, ice cream, White Mountain, 4-qt., stock No. 38,866	do	2.65
Freezers, ice cream, White Mountain, 6-qt., stock No. 38,867	do	3.35
Freezers, ice cream, White Mountain, 8-qt , stock No. 38,868	do	4 30
Freezers, ice cream, White Mountain, 10-qt., stock No. 38,869	do	5 60
Hangers, garment, stock No. 38,883	do	25
Hangers, garment, stock No. 38,884	do	4
Broilers, wire, No. 1, stock No. 38,886	do	5
Broilers, wire, No. 3. stock No. 38,888	do	8
Broilers, wire, No. 4, stock No. 38,889	do	10
Clocks, tattoo alarm, stock No. 38,894	do	1.35
Choppers, meat, "Enterprise," No. 10, stock No. 38,923	do	2.55
Choppers, meat, "Enterprise," No. 5, stock No. 38.924	do	1.75
Sifters, stock No. 38,936	do	11
Toasters, wire, stock No. 38,937..	do	3
Butter dishes, glass, 1-lb., stock No. 38,965	do	18
Butter dishes, glass, ½-lb., stock No. 38,966	do	18
Plates, glass, figured, stock No. 38,967	do	8
Celery dishes, glass, stock No. 38,968	do	15
Olive dishes, glass, stock No. 38,969	do	5
Ice cream dishes, glass, stock No. 38,971	do	6
Jugs, syrup, glass, stock No. 38,972	do	15
Cruets, vinegar, glass, stock No. 38.973	do	13
Cruets, oil, glass, stock No. 38,974	do	13
Fruit dishes, glass, stock No. 38,975	do	20
Ice bowls, glass, stock No. 38,976	do	50
Finger bowls, glass, stock No. 38,977	do	10
Oval dishes, glass, stock No. 38,978	do	12
Pickle trays, glass, stock No. 38,979	do	10
Nappies, glass, stock No. 38,981..	do	5
Cracker jars, glass, stock No. 38,982	do	32
Refrigerators, 50-lb capacity, stock No. 39,116	do	14.20
Refrigerators. 80-lb. capacity, stock No. 39,117	do	20.30
Refrigerators. 120-lb. capacity stock No. 39,118	do	22.40
Belts, grey and brown, stock No. 38,851	do	70
Belts, black, stock No 38,852	do	50
Sheets, Mohawk, 54x90, stock No. 38,873	do	60
Shoe lifts, cow horn, stock No. 38,875	do	15
Ruching, assorted colors, stock No. 38,876	yard...	15
Ruching, white, stock No. 38,877	do	20
Collars, ladies', sailor, stock No. 38,878	each...	14

** Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries.

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon

DEPARTMENTS.

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Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

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W. T. Haynie, Secretary.

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Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk.
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David V. Stratton, Chief Clerk.

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Caleb M. Saville, Assistant Division Engineer, Gatun.
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E. A. LeMay, Chief Clerk.
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Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

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J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
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F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

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H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon
O. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Kerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Feb. 12, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Atwell, H. J.
Barnett, C. C. (2)
Barnett, Mrs. B. M.
Brennan, Chas.
Blackwell, D.
Cleary, J. E.
Cousins, D. H.
Cortionatchis, Nicholas
Curzel, Peter S.
Duff, M. Lorne
Farrel, Richard (2)
Faxon, W. R.
Gilleland, Miss Dora
Grant, Jas.
Higgins, J. W. (newspaper)
Holmes, Albert
Hunter, John
Johnson, Jas. A.
Kepple, Chas. H.
King, J. O.
Kneeland, Mrs. J.
Levering, A. L.
Lindo, Albert
Marton, Samuel
Mayner, J.
McKenzie, Edwin
McKenzie, Jonas
Meyer, John
Rabbitt, David
Rowland, S. T. (package)
Smith, Arthur
Strobridge, L. W.
Taylor, Fred
Whitly, J. Garner (2)

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Atrato	*R.-M.*	*Saturday*	*Feb. 8*
Finance	*P.R.R.*	*Monday*	*Feb. 10*
Colon	*P.R.R.*	*Saturday*	*Feb. 15*
Prinz Joachim	*H.-A.*	*Saturday*	*Feb. 15*
Advance	*P.R.R.*	*Thursday*	*Feb. 20*
Sarnia	*H.-A.*	*Saturday*	*Feb. 22*
Trent	*R.-M.*	*Saturday*	*Feb. 22*
Panama	*P.R.R.*	*Tuesday*	*Feb. 25*
Prinz Aug. Wilhelm	*H.-A.*	*Saturday*	*Feb. 29*

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Panama	*P.R.R.*	*Wednesday*	*Feb. 12*
Trent	*R..M.*	*Wednesday*	*Feb. 12*
Allianca	*P.R.R.*	*Monday*	*Feb. 17*
Prinz Aug. Wilhelm	*H.-A.*	*Tuesday*	*Feb. 18*
Finance	*P.R.R.*	*Sunday*	*Feb. 23*
Prinz Sigismund	*H.-A.*	*Tuesday*	*Feb. 25*
Oroya	*R.-M.*	*Wednesday*	*Feb. 26*
Colon	*P.R.R.*	*Friday*	*Feb. 28*
Prinz Joachim	*H.-A.*	*Tuesday*	*Mch. 3*

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Atrato	*R.M.*	*Tuesday*	*Feb. 18*
Trent	*R.M..*	*Tuesday*	*Mch. 3*
Atrato	*R.-M.*	*Tuesday*	*Feb. 18*

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The *Prince Eitel Frederich* and *Prinz Sigismund* sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company dispatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Jamaican*, about Feb. 22.

The following steamers have recently arrived at La Boca: February 1, *Mexico* from Valparaiso; February 3, *Quito* from Guayaquil; February 4, *Acapulco* from San Francisco; February 7, *Farley* from San Francisco with 50,000 bags of coffee, 10,000 sacks of sugar and 8,000 hides; *Sheila* from Portland, Ore., with 3,000,000 feet lumber.

Departures were: February 1, *Mapocho* for Valparaiso; February 4, *Peru* for Valparaiso, and *San Jose* for San Francisco; February 5, *Ecuador* for Guayaquil.

Capture of Blas Martinez.

Blas Martinez was captured a few days ago at La Palma, near the frontier, by the police of the Republic of Panama and is being held by them pending extradition proceedings by the Zone officials.

Martinez is accused of murdering a woman and criminally assaulting a nine year old child at Las Sabanas, in the Canal Zone on December 19, 1907. Owing to the unfrequented place in which the crimes were committed about 24 hours elapsed before the authorities were notified, so that he had ample time to make his escape. Martinez has a long criminal record in Panama and has served a term of one year in the Zone penitentiary for grand larceny.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, FEBRUARY 19, 1908. No. 25.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed by the full name and address of the writer.

NOTES OF PROGRESS.

Chairman's Monthly Report.

The report of the Acting Chairman of the Isthmian Canal Commission for January is published in full in other columns of this issue of THE CANAL RECORD. It gives, as usual, specific information as to the progress of Canal construction in all divisions of the work. It shows that the total excavation by steam shovels in the Culebra Division during the month was more than twice as great as that for the corresponding month in 1907, and that the average output per shovel was 54 per cent. greater; the amount of rock was 12 per cent. greater; and the amount of earth 12 per cent. less. The number of working days in the month was the same in both years, but the average number of shovels working was 43 this year against 31 in 1907. At Gatun, a new line of borings was commenced for checking the records of the material underlying the dam.

The labor force showed a slight increase during the month, chiefly in the construction force proper. Small shipments of men were made from Spain and Barbados, and the immigration for January exceeded the emigration. A small number of laborers were recruited from the United States. Subsistence receipts were practically the same as in December 1907, with a larger profit. The growth of subsistence operations is shown by the figures for the past three Januaries: 1906, $14,538.04; 1907, $79,629.14; 1908, $142,720.54.

Dredging at La Boca.

The maximum daily output by the dredges in the La Boca Dredging Division for the week ending February 15, scow measurement, was as follows: February 13, dredge A-2, 7,242 cubic yards; February 12, dredge 14, 6,712 cubic yards; February 13, *Culebra*, 22,739 cubic yards. The total output for each of the three dredges for the same period was: Dredge A-2, (five days) 33,803 cubic yards; dredge 14, 35,973 cubic yards, *Culebra*, 109,374 cubic yards. The combined output for the week was 179,150 cubic yards.

Culebra Record Broken.

The record for excavation in the Culebra Division was broken on February 10, 1908, when the total amount of material removed was 50,784 cubic yards with 46 shovels, an average of 1,104 cubic yards per shovel for the eight-hour working day. This material was loaded on 1,584 Lidgerwood flats, 1,199 Western dump cars (small), and 262 Western dump cars (large), and hauled an average distance of about ten miles. Three hundred and fifty-two trains were handled by one hundred and thirty-four locomotives, divided as follows:

Serving steam shovels	88
Switching	10
In use with spreaders	8
In use with Lidgerwood unloaders	10
In use with track shifters	3
In use with labor trains	3
In use coaling shovels	2
In use with work trains	10
Total	134

Gatun Steam Shovel Work.

The maximum daily output of the six steam shovels working at the Gatun lock site for the week ending February 8, was made on Thursday, February 6, when 8,908 cubic yards, car measurement, were excavated, being an average of 1,485 cubic yards per shovel. During the same period the three shovels at the spillway excavated a total of 21,560 cubic yards, car measurement, the largest daily output being on February 5, when 3,916 cubic yards were removed, an average of 1,305 cubic yards per shovel. Steam shovel No. 119 made the largest output for any one day during the week, loading 2,167 cubic yards on February 3.

For the week ending February 1, the three shovels at the spillway excavated 23,961 cubic yards, car measurement, an average of 1,331 cubic yards per shovel per day. The maximum daily output was on January 30, when 5,004 cubic yards, car measurement, were removed, an average of 1,668 cubic yards per shovel. Steam shovel No. 114 made the largest output for any one day during the week, loading 2,232 cubic yards on January 28.

Proposals for Buildings.

Bids are being invited, by advertisement, for the construction, by contract, of two type "A" jails for the Department of Civil Administration, one to be located at Corozal, and one to be located at Las Cascadas; and also for the construction of a four-family type 14 quarters at Cristobal. The Commission will furnish all material and the contractor is required to provide all labor. Bids will be opened by the Chief of Division of Material and Supplies at Cristobal on February 29. Plans and specifications can be obtained upon application to the office of the Chief Engineer, Culebra.

All bids received on the construction of the three markets at Gatun, Cascadas and Pedro Miguel, by contract, have been rejected, and these markets will be built by the Division of Building Construction, as the cost of the market of the same type recently constructed by the Division of Building Construction at Paraiso, was less than any bid received for the construction of the other three markets.

The Rebuilt "Allianca."

The Panama railroad steamship *Allianca*, Capt. G. E. Sukeforth, arrived at Cristobal on Thursday, February 13, on her first voyage from New York since her reconstruction. She is practically a new ship, as the extensive alterations that have been made have noticeably changed her appearance. She has been lengthened 32 feet, which adds 900 tons to her capacity, and has been fitted with an entirely new superstructure.

Previous to rebuilding she was stripped to the bare hull, hauled out on the ways, cut in two, and a section of 32 feet was inserted amidship. A double bottom, 84 feet long and extending 26 feet into each end of the original hull was added, capable of holding in sections, 250 tons of water ballast, which can be used to store fresh water for the boilers. An entirely new stern frame was installed, a new rudder post, stern post and shoe, and a new cast steel rudder and stock fitted with a complete Williamson steam steering apparatus; also, a new bronze propeller wheel and stern tube. New shafting throughout was put in, as well as a three cylinder, triple expansion engine supplied with independent air, circulating and feed pumps, and independent and auxiliary surface condensers. Four new cylindrical return tubular boilers, 14½ feet in diameter and 12 feet long, and a new donkey boiler were installed, all constructed for a working pressure of 185 pounds. A Clayton fire-extinguishing and disinfecting apparatus has been installed and is connected with each compartment of the holds. There is also a completely new cold storage plant providing 8,700 cubic feet of cold storage space for the transportation of meats and vegetables, equivalent to about 217 tons of supplies. The old *Allianca* had no cold storage facilities.

All the woodwork of the original vessel was removed and entirely new joiner work has been supplied throughout. The furnishings of the staterooms are entirely new. There are four stateroom suites, A, B, C and D, of two rooms each, with a bath room between; and there are four additional public bath rooms and six toilet rooms. The main saloon, dining saloon, smoking room and many of the staterooms are sup-

NOTES OF PROGRESS

(*Continued*)

plied with electric fans, and the interior finish of the ship is in white and gold. The galleys and pantries, with their furnishings, are all entirely new, and are well supplied and complete in every detail. The dining room has been placed in the forward part of the hurricane deck, as on the *Panama* and *Colon*, and the smoking room is aft on a level with the boat deck. There is a double installation of electric light wires throughout the ship and she is equipped with a complete wireless telegraph system.

The vessel's present dimensions are: Length over all 358 feet, beam 42 feet, depth 33 feet 9 inches, and gross tonnage 3,900 tons. She can carry 162 first-class and 28 steerage passengers, and has a crew of 89 officers and men.

The contract under which the ship was rebuilt required the machinery to develop 3,200 horse-power and to maintain a speed of 14 knots for eight consecutive hours in the open ocean, on a mean draft of 17 feet. On her trial trip shortly before she sailed from New York she maintained a speed of 15¼ knots and developed 3,600 horse-power. The work of rebuilding was done under the direction of E. Platt Stratton, Supervising Engineer for the Panama Railroad Steamship Company; Captain Sukeforth, and Robert Granger, chief engineer of the vessel. Work was started in April, 1907, and the total cost has been about $350,000.

A luncheon was given on board on Friday, February 14, by Mr. H. J. Slifer, Assistant to the President, and General Manager of the Panama Railroad Company, at which about 250 persons were present. A special train was run to accommodate the guests from Panama and other points along the line.

Lecture on Explosives.

It has been arranged through the courtesy of Mr. E. C. Ferriday, manager of the contractors division of the DuPont Powder Company—which is furnishing most of the explosives used on the Isthmus—to have a lecture on the subject of explosives given at Kangaroo hall, Empire, on the evening of February 21, by Mr. N. I. Steers, superintendent of the factory which manufactures all blasting supplies sent to the Isthmus by the DuPont Company, and Dr. Hudson, the chemist of the company, the lecture to be followed by a general discussion of the subject and replies to questions asked by interested parties. All employes who are engaged in the handling, storage, etc., of explosives, are invited to be present. The Panama railroad will run a special train from Colon to Empire and return in order to enable employes to attend the lecture and return to their homes that evening. The special will leave Colon at 6 p m., and returning leave Empire at 10 p. m. A special train will also be run to enable employes living south of Empire to return to their homes after the lecture.

The ocean-going tug *E. C. Reynolds*, which is on her way from New York to La Boca for use at the Pacific end of the Canal, reported her arrival at Valparaiso, Chile, on February 10 with all well on board.

PERFORMANCE OF STEAM SHOVELS.

The subjoined table shows the record of steam shovel work in the Culebra Division for the past two years. It will be noticed that the average output per shovel for the month of January, 1908, is larger than for any previous month since work began:

Period.	Average number of steam shovels at work.	Number of working days in month.	Output per shovel cubic yards		Rainfall—Inches.		Maximum temperature in sun at Empire (degrees Fahrenheit).
			Per day.	Per month.	Empire.	Culebra.	
1906—							
January	12.83	26	363	9,430	1.28	1.19	.....
February	12.48	23	587	13,494	0.57	0.64	.....
March	12 37	27	716	19,335	0.45	1.34	.....
April	12.33	24	720	17,289	11.42	8.43	.....
May	12.41	27	581	15,684	7.54	7.25	.....
June	14.81	26	539	14,026	6.92	8.94	123
July	16.64	25	378	9,441	14.61	20.26	127
August	16.93	27	536	14,461	11.84	12.97	132
September	21.33	24	568	13,664	7.41	6.22	130
October	22.67	27	532	14,373	3.97	8.46	128
November	20.46	24	459	10,833	21.05	19.19	120
December	22.68	25	491	12,267	8.15	9.09	108
1907—							
January	31.04	26	702	18,248	0.08	0.00	104
February	39.87	23	674	15,966	0.13	0.49	108
March	43.88	25	741	18,530	0.16	0.08	105
April	44.12	26	765	19,884	0.09	0.04	110
May	31.70	26	833	21,674	6.22	7.45	118
June	38.28	25	651	16,266	13.53	14.74	118
July	43.38	26	680	17,670	9.85	9.42	118
August	39.70	27	729	19,680	11.28	11.81	120
September	38.50	24	811	19,468	10.86	11.38	123
October	37.63	27	813	21,963	15.44	15.27	123
November	41.88	24	784	18,818	10.40	6.91	123
December	42.72	25	965	24,113	1.47	2.30	124
1908—							
January	43 42	26	1,084	28,177	0.75	0 91	125

NOTE.—The working day for steam shovels is eight (8) hours.

REVENUES OF THE REPUBLIC OF PANAMA.

The following is a summary of an itemized statement, which appeared in the Official Gazette of January 16, 1908, of the national revenues of the Republic of Panama collected during 1907, compared with the estimated collections for that year, and the collections for 1906. The figures are in gold:

Source.	Collected in 1907	Estimated collections for 1907.	Excess of collections over estimates.	Collected in 1906	Increase of 1907 collections over collections in 1906.
Importation of articles not in a special class, paying 10 per cent. duty	$757,984 90	$717,662.50	6 per cent.	$593,657.20	27 per cent.
Importation of liquors	438,299.10	490,500.00		317,078.48	38 per cent.
Importation of tobacco and cigarettes	205,478.83	177.500.00	16 per cent.	45,847.70	350 per cent.
Importation of salt	7,669.40			4,664.81	64 per cent.
Importation of matches	19,563.38	15.265.00	28 per cent.	11,990.68	63 per cent.
Importation of coffee	27,412.76	20,000.00	35 per cent.	11,533 47	137 per cent.
Tax on manufacture of liquors (distillation)	25,441.87				
Slaughter tax on cattle, sheep, hogs, etc	127,593.77				
National mails	63,420 95				
Stamped paper and revenue stamps	51,197,44	43,075.00	19 per cent.		
Export duties	43,083.79	30,000.00	43 per cent.		
Panama lottery	63,000.00				
Consular fees	89,518.13	63,350.00	41 per cent		
National telegraphs	5,955.22				
Parcels post	8,971.02				
Retail liquor licenses	84,829.50				
Importation of cattle	16,841.50				
Interest on national funds	294,000.00				
All other sources	109,040.12				
Total	$2,439,301.68				

In submitting this statement the Secretary of Finance says: "My budget of expenses being $2,433,865.63 per year, it seems to have been covered, and as the Republic of Panama fortunately has no war budget, or internal or external indebtedness, we will soon have a surplus if we keep within the present budget."

Civil Service Examination.

A Civil Service examination for the position of clerk in the service of the Isthmian Canal Commission upon the Isthmus, will be held at Ancon, C. Z., on Sunday, March 15. Application forms and all necessary information may be obtained from John K. Baxter, Secretary, Isthmian Civil Service Board, Ancon, C. Z.

Examination for Physician.

Examination for the position of Physician in the service of the Isthmian Canal Commission will be held at Ancon on or about the 23rd instant. Application forms and all necessary information may be obtained upon application to John K. Baxter, Secretary, Isthmian Civil Service Board, Ancon, C. Z.

REASONS FOR WIDENING THE LOCKS.

Memorandum of the Chairman and Chief Engineer Submitted to the Secretary of War.

The following are the documents submitted to the Secretary of War by Colonel Goethals, Chairman and Chief Engineer of the Isthmian Canal Commission, on January 11, as reasons for widening the locks of the Canal to 110 feet. The correspondence between the President and Secretary on the same subject was published in The Canal Record of January 29, but these documents were not at hand for publication at that time.

January 11, 1908.

The Hon. Wm. H. Taft,
Secretary of War,
Washington, D. C.

Sir: The following is an extract from the minutes of the One Hundred and Thirty-seventh Meeting of the Isthmian Canal Commission, held at Culebra, Canal Zone, December 7, 1907:

"As the law requires that the locks of the Isthmian Canal shall be of such size 'as will afford convenient passage of ships of the greatest tonnage and draft now in use and such as may be reasonably anticipated,' and

"As it is the opinion expressed by the General Board of the Navy, stated in a Memorandum to the Secretary of the Navy dated Washington, Oct. 29, 1907, 'that the width of the locks as now fixed, namely—100 feet—is insufficient for probable ships of future construction, and that sound policy would dictate an increase to a clear width of 110 feet.'

"Upon motion it was

"*Resolved,* That the width of the locks be increased from 100 feet in the clear to 110 feet in the clear, in order to meet requirements of the Navy that can be reasonably expected in the near future."

As the action of the Commission outlined in the foregoing resolution makes a change in the project already approved, I have the honor to recommend that the approval of the resolution be formally given, so as to enable the Commission to proceed with the work necessary to accomplish the increased width of the locks.

Respectfully,
Geo. W. Goethals,
Chairman and Chief Engineer.

Memorandum for the Secretary of War.

An increase in the width of the locks of the Panama Canal will increase the cost, increase the time of filling and emptying the locks, thereby reducing the capacity of the Canal, and affect the sufficiency of the water supply.

The cost of all the locks 100 feet wide in the clear is estimated at $52,580,011. This cost is increased approximately 10 per cent. for an additional width of 10 feet; 15 per cent. for an additional width of 15 feet; 20 per cent. for an additional width of 20 feet, and 25 per cent. for an additional width of 25 feet. Assuming that the resolution of the Commission be adopted fixing the width of the locks at 110 feet in accordance with the wishes expressed by the General Board of the Navy, the cost will be $57,690,850, a difference too small to be considered, assuming the necessity for the increased width be as stated by the Navy.

The increased time of filling and emptying reduces by just so much the number of lockages per day and to that extent reduces the capacity of the Canal. Increased width of locks necessitates larger gates and heavier machinery for their operation, thereby reducing the facility of operation.

The Board of Consulting Engineers fixed the maximum elevation of the lake level at plus 86 and the minimum at the end of the dry season at 82, giving a storage of practically 4 feet in the lake for lockages. With locks 100 feet wide and allowing 250 cubic feet per second as necessary for operating the power plant, it is found that for the year of minimum discharge, 1903, 22 lockages in 24 hours will be the maximum number permissible. During the year of average discharge the maximum number of lockages will be 31. Under these circumstances, the depth of the water at the end of the dry season in the Culebra Cut will be 42 feet. There is no reason why the maximum level in the lake should not be maintained at 87 feet and if the lake be drawn off 7 feet, reducing the level in the Culebra Cut to 40 feet, which will be ample depth for any battleship built or contemplated, there will be sufficient water for 39 lockages per day, the number fixed on as the maximum by the Board of Consulting Engineers. If it be desired to obtain this number of lockages for every year, then additional storage capacity will have to be provided by a dam at Alhajuela, or the operating plant will have to be moved to that locality, and a dam constructed necessary to give sufficient head for generating the power required. The latter method is the more economical and by an additional expenditure of $2,000,000 will give a water supply ample for locks of 125 feet in width.

It is the opinion of the Commission that the present width of locks, 100 feet, is ample for all commercial vessels that are now building, or that may be contemplated; and that the locks are sufficient in size for any battleship now constructed, building, or at present projected. As however, the Navy General Board desire a width of 110 feet and state that "the width of locks as now fixed is not sufficient for probable ships of future construction and that sound policy would dictate a clear width of 110 feet," the Commission felt that it should be guided by the wishes of the Navy and adopted the resolution fixing the size of the locks at 1,000 feet in length and 110 feet in width.

Geo. W. Goethals,
Chairman and Chief Engineer.

Isthmian Baseball League.

The official standing of the teams in the Isthmian Baseball League on February 10, 1908, was as follows:

Clubs	*Played*	*Won*	*Lost*	*Per cent.*
Empire	8	6	2	.750
M. P. & M.	8	6	2	.750
Ancon	6	4	2	.666
Culebra	8	5	3	.625
Kangaroos	7	3	4	.428
Gatun	7	1	6	.143
Gorgona	6	0	6	.000

Cricket.

On February 9, Mr. H. L. Kilburn took a team from Colon to play a match with the Gorgona Cricket Club at Gorgona. A two inning game resulted in a victory for the visitors by one run. Score: Mr. Kilburn's eleven, 42 and 44, total 86; Gorgona eleven, 37 and 48, total 85. Farquharson made double figures for Mr. Kilburn's team 15 and 12, and Ashton made 21 and Stark 12 for the Gorgona Cricket Club.

INJURED CANAL EMPLOYES.

Extract from President Roosevelt's Special Message Urging Government Compensation to Them.

I also very urgently advise that a comprehensive act be passed providing for compensation by the Government to all employes injured in the Government service. Under the present law an injured workman in the employment of the Government has no remedy, and the entire burden of the accident falls on the helpless man, his wife and his young children. This is an outrage. It is a matter of humiliation to the nation that there should not be on our statute books provision to meet and partially to atone for cruel misfortune when it comes upon a man through no fault of his own while faithfully serving the public. In no other prominent industrial country in the world could such gross injustice occur; for almost all civilized nations have enacted legislation embodying the complete recognition of the principle which places the entire trade risk for industrial accidents (excluding, of course, accidents due to wilful misconduct by the employe) on the industry as represented by the employer, which in this case is the Government. In all these countries the principle applies to the Government just as much as to the private employer. Under no circumstances should the injured employe or his surviving dependents be required to bring suit against the Government, nor should there be the requirement that in order to insure recovery negligence in some form on the part of the Government should be shown. Our proposition is not to confer a right of action upon the Government employe, but to secure him suitable provision against injuries received in the course of his employment. The burden of the trade risk should be placed upon the Government. Exactly as the workingman is entitled to his wages, so he should be entitled to indemnity for the injuries sustained in the natural course of his labor. The rates of compensation and the regulations for its payment should be specified in the law, and the machinery for determining the amount to be paid should in each case be provided in such manner that the employe is properly represented without expense to him. In other words, the compensation should be paid automatically, while the application of the law in the first instance should be vested in the Department of Commerce and Labor. The law should apply to all laborers, mechanics and other civilian employes of the Government of the United States, including those in the service of the Panama Canal Commission and of the insular governments.

* * * * * * *

There is a special bill to which I call your attention. Secretary Taft has urgently recommended the immediate passage of a law providing for compensation to employes of the Government injured in the work of the Isthmian Canal, and that $100,000 be appropriated for this purpose each year. I earnestly hope this will be done; and that a special bill be passed covering the case of Yardmaster Banton, who was injured nearly two years ago while doing his duty. He is now helpless to support his wife and his three little boys.

SOCIAL LIFE OF THE ZONE.

Activities of the Women's Clubs and other Organizations.

The St. Valentine's dance given by the Culebra Woman's club February 14, was largely attended. The club rooms were decorated and the Valentine idea was carried out by small favors in the shape of hearts worn by the dancers. The Culebra band furnished the music. The committee in charge was Mrs. Puller, Mrs. Stevenson, Mrs. Byram, Mrs. Butler, and Mrs. Parmeter. Mrs. Stevenson had charge of the refreshments.

The February meeting of the Ancon Art Society will be held February 26 at the residence of Mrs. W. C. Gorgas, Ancon, from 8:30 to 10 o'clock in the evening.

The Altar Guild of St. Luke's church will give a reception to the members of the congregation February 24, in the music room of Hotel Tivoli from 8 to 10 o'clock.

The newly elected president of the woman's club at Las Cascadas, Mrs. W. H. Stanton, presided at the meeting of the club held in the Commission club rooms February 13. An informal musical program was given. Mrs. J. C. van Hardenveldt and Mrs. C. L. Thorne were elected to fill the offices of secretary and treasurer respectively, in place of Mrs. W. H. Boregard and Mrs. Williamson who had resigned.

The American social club at Las Cascadas and the woman's club gave a St. Valentine's party February 15. Progressive pedro and dancing were the features of the evening.

At the business meeting of the Pedro Miguel club February 12, the reports of the various committees showed satisfactory progress in the work undertaken by the club. A set of by-laws drawn up by a committee with Mrs. Waters as chairman was presented and adopted. Royal purple and gold have been adopted as the club colors.

The Gorgona club held its regular business meeting February 13 with the president, Mrs. R. C. Goodale, in the chair. Action was taken on the resolutions adopted at the Federation meeting in January, the educational question being discussed with especial interest in regard to the investigation in the matter of high school facilities. The chairman of the art department, Mrs. Sykes, reported progress in the forming of art classes which will be ready to begin work in a short time. The study of Spanish will be renewed under a newly appointed teacher.

The program for the club's social meeting, February 27, is in the hands of the educational department. Mrs. Perkins, teacher of the primary grade at the Gorgona school will give an address on school work. Several musical numbers arranged for by the musical department will be given.

The board of managers of the Cristobal Woman's Club held a special meeting February 12. Dr. Claude Pierce, quarantine officer at Colon will address the club at the regular meeting February 19.

An entertainment was given by the young people of Cristobal on Tuesday evening February 11, at the Union church, for the purpose of raising funds to purchase a library. Mrs. Wm. Pearn had charge of the arrangements. The attendance was large and a liberal sum of money was secured toward purchasing the children's library.

The Paraiso club has arranged for an entertainment to take place March 5, and an invitation has been extended to the Pedro Miguel Woman's Club.

In the article, "Church Organization at Las Cascadas," published in THE CANAL RECORD of January 29, it was stated that Mr. F. W. Leydecker was superintendent of the Sunday school. This was incorrect. Mr. Wm. K. Freeland is the superintendent and Mr. Leydecker is the assistant superintendent.

The trip of the Ancon Amusement Association to the Pearl Islands, on Sunday, February 16, was a complete success. About 450 persons, most of them members of the association availed themselves of the privilege.

PERSONAL.

Maj.-Gen. George W. Davis, U. S. A., retired, who was Governor of the Canal Zone from May, 1904, to May, 1905, arrived at Colon on the United Fruit Company's steamer, February 18, accompanied by his daughter. General Davis comes to the Isthmus from Guatemala, where he represented the United States at the formal opening of the new Trans-continental Railroad. He is staying at the Hotel Tivoli, and will spend a number of days inspecting the work of Canal construction in which he retains a deep interest.

Thomas J. Dolan, General Secretary-Treasurer of the International Brotherhood of Steam Shovel and Dredge Men, has returned to the States after spending several days on the Isthmus. Previous to his departure he stated that he had never seen a piece of construction work so well organized as the Canal work is, or one that was producing larger average results; that he he did not think there was a piece of construction work anywhere in the world where the employes are better treated than they are on the Isthmus, and that wherever he went during his stay he found the laborers of all classes satisfied and contented.

Mr. and Mrs. C. N. Gilmore of Des Moines, Iowa, spent the past week on the Isthmus and have visited the various parts of the Canal work. Mr. Gilmore has been connected with railroad work in Iowa for fifty-one years, and for twenty-nine years was superintendent of a division of the Rock Island system with headquarters at Des Moines. Mr. Gilmore and Mr. H. J. Slifer, General Manager of the Panama Railroad, have been warm friends for many years.

Mr. E. Platt Stratton, Supervising Engineer of the Panama Railroad Steamship Company, who had charge of the recent reconstruction of the Allianca, was a passenger on that vessel upon her arrival at Cristobal, February 13. Mr. Stratton spent some time on the Isthmus during the French regimé and is much interested in the improvements that have been made since his previous visit.

Mr. Porter S. McCormick, Freight and Passenger Agent of the United Fruit Company at Colon, sailed on the *Ellis*, February 18, for a visit of a few weeks at his home in New Orleans.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

REPORT FOR JANUARY, 1908.

Membership	1,581
No. of bowling games	5,299
Average per day	190
No. of pool and billiard games	13,074
Average per day	493
Income from soda fountain	$1,022.65
Average per day	35.18
No. different men using gymnasium	295
No. men enrolled in systematic class work	176
Total attendance men using gymnasium	1,060
Average per day	40
No. enrolled chess and checker clubs	74
No. enrolled glee club	44
No. enrolled minstrel club	76
No. enrolled camera club	7
No. enrolled orchestra	12
No. enrolled Bible club	64
No. enrolled educational classes	107
Spanish	75
Mechanical drawing	16
Arithmetic	5
English grammar	6
Wireless telegraphy	5
No. members library	379
No. books withdrawn	1,086
No. Sunday meetings	10
Average attendance	50
No. educational and travel lectures	2
Average attendance	73
No. imported entertainments	4
Average attendance	150
No. local entertainments	5
Average attendance	350
No. afternoons for women	29
Average attendance	17
No. functions outside association management	13
Average attendance	123
No. of evening functions to which women were invited	22
Average attendance of women	29
No. committees	28
Different men on committees	149
No. men called on in hospitals	42
No. letters written at public tables	3,934
Average per day	160
Total attendance at buildings	41,137
Attendance per day	1,327

CRISTOBAL.

W. J. McSparren, a fencing master of large experience in the States, is giving lessons in fencing, consisting of instruction in the use of the foil, broad-sword and single-stick.

The second term of the night schools opened on Tuesday, February 11. Instruction is given in Spanish (beginning and advanced), commercial arithmetic, English composition, wireless telegraphy and mechanical drawing (beginning and advanced). Classes will be formed in first aid to the injured, surveying, stenography and typewriting if there is a sufficient enrollment to justify their organization. Sessions are held in the public school building, and a tuition fee of 25 cents per lesson is charged.

On Washington's birth-day there will be an athletic meet in the afternoon, and an exhibition of moving pictures in the evening. The Bachelors' club will give a dance on Saturday evening, February 29.

CULEBRA.

The baseball team of the boys' department has recently played two games with the Empire boys, winning the first game—7 to 3—, and tieing the second, which lasted ten innings, by a score of 8 to 8

Thirty-two bowling games, in which the score has been 200 or more, have been rolled on the Culebra alleys since January 1, including a new Isthmian Y. M. C. A. record of 264 by E. J. Vogel.

A billiard tournament, recently started, has the following men entered: Baumer, Baxley, Clark, Doty, Dubois, Floyd, Johnson, McCnnn, Oliver, Perrault, Sholtes, Speir, Strong, Tragsdorf, Vogel and Walsh.

CANAL WORK FOR JANUARY.

Monthly Report of Acting Chairman to the Secretary of War.

February 14, 1908.

The Honorable,
The Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of operations on the Isthmus for the month of January, 1908:

Department of Construction and Engineering.

CULEBRA DIVISION.

The total amount of material excavated in this division during the month was 1,228,506 cubic yards, an increase of 203,021 cubic yards over the amount excavated in December, 1907. Of this amount, 1,150,334 cubic yards were removed from the Canal prism proper.

For comparison with the work performed during the corresponding month of the previous year, the following table has been prepared:

Period.	Total amount of material excavated by steam shovels.	Classification of material		Av. No. of steam shovels working during month.	Wk'g days in m'th	Av. amount excavated per steam shovel per day.	Av. amount excavated per steam shovel per month
		Rock.	Earth.				
1907	cu. yds.	%	%			cu. yds.	cu. yds.
Jan.	566,432	53	47	31.04	26	702	18,248
1908							
Jan.	1,224,898	65	35	43.42	26	1,084	28,177

Rainfall during month: 1907, 0.04 inches; 1908, 0.83 inches.

It will be noted that the total excavation by steam shovels in the Culebra Division during the month of January, 1908, was more than twice as great as that for the corresponding month in 1907, and that the average output per shovel was about 54 per cent. greater.

During the month, 207,379 feet of drilling were accomplished, and 273 tons of explosives were used.

The rock channelers and the rock crusher at Bas Obispo were continued in operation.

During the month, 18.9 miles of new track were laid and 8.1 miles of old track were removed.

The average daily number of laborers at work was 6,842.

CHAGRES DIVISION.

Work in this division was continued throughout the month at Matachin, San Pablo and Caimeto, and preparations were made for beginning work at Santa Cruz. The total amount of material excavated from the Canal prism was 169,447 cubic yards, an average of eight steam shovels being worked during the month.

The drilling amounted to 21,826 lineal feet, and 31 tons of explosives were used.

During the month, 4.1 miles of new track were laid, and 0.6 miles of old track removed.

The average number of employes at work on this division was 1,526, an increase of 326 as compared with the preceding month.

The rainfall for the month at San Pablo was 0.79 inches.

COLON DIVISION.

Three dredges worked on this division during the month; two in the prism of the Canal in Limon Bay, and the third in the old French canal, above the dry dock. The total excavation by the three dredges amounted to 490,701 cubic yards.

The dipper dredge *Chagres* was laid up throughout the month. The 16-inch suction dredge worked at Porto Bello practically the entire month.

Work was continued at Mindi hills by two steam shovels, the output amounting to 62,835 cubic yards. The drilling at this point amounted to 11,252 lineal feet.

GATUN LOCKS.

The six shovels working at the lock site excavated 193,567 cubic yards during the month. The drilling amounted to 1,068 lineal feet.

The work at Porto Bello included the dredging of a channel 10 feet deep leading to the tramway dock, the construction of of a temporary dock for the tramway, excavation at the site of the handling plant, preparation of the site for the power plant, work on the roadway at the quarry, and preliminary surveys for necessary tracks.

GATUN DAM AND SPILLWAY.

Three shovels worked throughout the month on the spillway site, removing 98,588 cubic yards of material; some piling was driven, and 7,390 lineal feet of drilling were accomplished. Investigations and explorations for materials for the construction of the dam proceeded throughout the month. In addition to the borings made for suitable materials, a new line of borings was commenced for checking the records of the material underlying the dam. A party was engaged in digging shallow test pits for examination of the character of the surface materials in the proposed dam location for the purpose of determining the amount of stripping to be done. Thus far the indications are that 1½ to 2 feet would give assurance of firm ground, free from roots and weathered soil. The borings taken north of the dam, down the Chagres river, indicate that about 10,000,000 cubic yards of material can be found in this location.

During the month, 4,693 lineal feet of holes were drilled, and 43,822 lineal feet of transit line were run.

LA BOCA DIVISION.

Four dredges were worked in this Division during the month, all operating in the Canal prism. The total excavation amounted to 460,390 cubic yards.

LOCKS AND DAMS.

Borings were continued for the purpose of determining the nature of the sub-strata on the Canal axis between Pedro Miguel and Panama.

Two steam shovels were worked during the month on the lock site at Miraflores, removing 7,203 cubic yards of material. Necessary track was laid for handling the excavated material from Miraflores to the dumps.

Work on the flooded area surveys progressed satisfactorily during the month. In addition to these surveys, a force was engaged in work on the Miraflores lock site.

The designing force was engaged almost the entire month on comparative estimates in connection with the change of location of the locks on the Pacific slope.

RE-LOCATION OF THE PANAMA RAILROAD.

At the end of the month, seven connection tracks from the operated line were in use, the remainder having been temporarily abandoned.

During the month, 32,987 cubic yards of material were excavated and 154,091 cubic yards were placed in embankments.

A total of 2,164 feet of temporary trestle were driven during the month.

Work on the construction of bridges and culverts was continued.

The driving of Miraflores tunnel was continued from both ends, 170 feet remaining between the two drifts at the end of the month.

The track between Mindi and Gatun was ballasted for a distance of 6,750 lineal feet, but no permanent track was laid during the month.

The force of laborers engaged on the work of re-location averaged 775 men.

DIVISION OF MUNICIPAL ENGINEERING.

The usual maintenance work of this division in connection with waterwork, sewers and paving, was continued during the month. Work was commenced on a number of small jobs of new construction, and estimates and drawings were made for proposed improvements at different points.

MECHANICAL DIVISION.

The usual work was performed by this division in connection with the installation of machinery in the shops and power plants, the erection and repair of equipment, and electric wiring and installations at various points. Miscellaneous new and repair work was done for other divisions and departments. In the Gorgona shop yard, 3,445 feet of new track were laid. The foundry at Gorgona produced 382,853 pounds of brass and iron castings, and 134 new patterns were made. The usual work was performed in connection with the operation, maintenance and repair of shop, electric light and air compressor plants; also, work on shop yards and grounds.

DIVISION OF BUILDING CONSTRUCTION.

During the month, this division completed 18 items of construction, which included the new Administration Building at Ancon, a number of type houses, one special type house. three storehouses, and one shop building, Repairs were made to 115 buildings, 6 buildings received alterations, and 5 old buildings were demolished.

DIVISION OF METEOROLOGY AND RIVER HYDRAULICS.

The usual observations and measurements were continued during the month.

The mean, temperature for the month was 81 degrees at Ancon, 77 degrees at Bas Obispo, and 80 degrees at Cristobal.

The total evaporation at Bas Obispo was 5.617 inches.

The rainfall was 3.18 inches at Gatun, .75 inches at Empire, and .21 inches at La Boca.

Department of Labor, Quarters and Subsistence.

During the month the labor force showed an increase, which was confined principally to the construction force proper. Small shipments of men were made from Spain and Barbados, and the immigration for January exceeded the emigration. A small number of laborers were recruited in the United States.

A number of type houses were authorized during the month, and several houses were turned over by the Building Department on completion.

The following statement shows the situation with regard to family quarters at various points:

Place.	Number of applications.	Date of oldest application.
Cristobal	139	May 23, 1907
Ancon	47	May 27, 1907
Gatun	52	July 10, 1907
Pedro Miguel	36	July 13, 1907
Empire	117	July 24, 1907
La Boca	19	Aug. 15, 1907
Corozal	13	Sep. 3, 1907
Paraiso	31	Oct. 2, 1907
Gorgona	55	Oct. 12, 1907
Las Cascadas	26	Oct. 18, 1907
San Pablo	9	Nov. 30, 1907
Culebra	34	Dec. 2, 1907
Tabernilla	5	Dec. 19, 1907

The subsistence receipts were practically the same as in December, 1907, with a larger profit.

The follow figures indicate the growth of the subsistence operations during the past two years:

January, 1906	$ 14,538.04
January, 1907	79,629.14
January, 1908	142,720.54

Department of Civil Administration.

During the month, the offices of the Head of the Department, the Collector of Revenues, the Superintendent of Schools, the Prosecuting Attorney, and the Chief of Police were removed to the new Administration building at Ancon.

When the municipalities of the Canal Zone were abolished on April 15, 1907, the ordinances enacted by those municipalities remained in force. In order to secure uniformity in the ordinances throughout the Zone, a draft of the ordinances was submitted to the Justices of the Supreme Court, the District Judges and the Prosecuting Attorney for their recommendations.

In order to avoid interference by the dredges with the cable of the Central and South American Telegraph Company, in the channel at La Boca, the Company has been requested to arrange for the removal of the cable beyond the locality in which the work is in progress.

Nine persons of undesirable character were deported from the Zone during the month.

COURTS.

In the Supreme Court, four cases were tried but none disposed of. In the Circuit Courts, 2 civil and 26 criminal cases were disposed of, and in the District Courts 22 civil and 503 criminal cases were tried and settled.

REVENUES.

The usual business of this department was transacted, embracing all matters in connection with the postal service, lands, collection of customs, internal revenues, miscellaneous collections and administration of estates. There were 66 despatches of mail from the Cristobal exchange office during the month. Forty-two vessels entered the ports of Ancon and Cristobal, and forty-three cleared.

POLICE DEPARTMENT.

The police force was increased by 13 members during January, making the effective force 160 officers and men. The number of arrests was unusually large, amounting to 522, as compared with 460 in December. Seven convicts entered the penitentiary and nine prisoners were discharged; eighty-eight convicts remaining in confinement at the end of the month. The Coroner reported seven deaths in the Canal Zone requiring his action.

DIVISION OF PUBLIC WORKS.

The average daily consumption of water daily of water in Panama and Colon during January was 762,161 gallons and 531,789 gallons, respectively, as compared with 886,678 gallons and 883,680 gallons, respectively, during December. A number of collections on account of water rents for the quarter ended December 31, 1907, were made in both cities.

FIRE DEPARTMENT.

Six fires occurred in the Canal Zone during the month, two of which were at Cristobal, and one each at Empire, Culebra, Paraiso and Ancon. The total loss to buildings amounted to only $143.50, all of which was sustained by Commission property. The force of the Department was increased by three firemen during the month. New fire stations at Gorgona, Empire, Culebra and Ancon were practically completed at the end of the month.

DIVISION OF SCHOOLS.

The schools of the Canal Zone were reopened on January 6, after the holiday recess. The enrollment in the white schools was 468, and in the colored schools 1,151.

Department of Sanitation.

(The full report of this Department was published in THE CANAL RECORD last week.)

Respectfully,
(Sgd.) D. D. GAILLARD,
Acting Chairman
and Chief Engineer.

Tivoli Club.

THE CANAL RECORD.

The regular quarterly meeting of the Tivoli Club will take place Monday evening, February 24, at 7:30, in the old Administration Building, Panama.

MALCOLM ELLIOTT,
Secretary.

Station "A" Ancon, Feb. 11, 1908.

Improved Order of Red Men.

To all members of the Improved Order of Red Men, and to such others as these presents shall come, Greeting:

This is to certify that in obedience to the authority vested in me, I do hereby grant and proclaim a Special Dispensation to the various tribes, and to the Degree of Pocahontas, in the Reservation of the Canal Zone, Panama, whereby they are authorized to participate in a parade and celebration in commemoration of Washington's birthday, at the hunting grounds of Cristobal, C. Z., 22nd Sun, Snow Moon, Great Sun of Discovery 437; Common era, February 22, 1908.

B. B. DUNCAN,
Deputy Great Incohonee.

Las Cascadas, Feb. 15.

Empire Masonic Club.

THE CANAL RECORD:

An association of Master Masons was formed on Friday, January 31, under the name of "Empire Masonic Club." Bro. A. L. Haines was elected president, Bro. F. L. Gorham, vice-president; Bro. H. W. Sawtelle, secretary-treasurer; Bro. G. M. McAdam, assistant secretary-treasurer. The next meeting will be held Friday, February 21, in Kangaroo hall, Empire. All Master Masons in good standing are invited to attend.

H. W. SAWTELLE,
Secretary-Treasurer.

Empire, C. Z., Feb. 15.

If Manardia Williams, formerly of Henry, N. C., will communicate with R. C. Deal of Culebra, C. Z., he will learn something to his interest.

OFFICIAL CIRCULARS.

Re-employment of European Laborers.

CIRCULAR NO. 157.

In order to prevent excessive deductions being made for the transportation of European laborers, it is directed that hereafter such laborers shall not be re-employed at the rate of 40 cents, silver, per hour until a statement is secured from the department or division in which last employed showing the following information:

1. Full name.
2. Metal check number.
3. Record of transportation deductions in all departments or divisions since original employment, or if never employed in more than one department or division, a statement to that effect.

This statement will not be handed to the laborer, but will be mailed to the department or division to which the laborer has applied for re-employment, upon the request of such department or division.

The laborer who applies for re-employment must have in his possession the metal check reported in the statement. In all cases the provisions of this Circular must be fully complied with. A receipt showing that a laborer has paid his transportation in full is not sufficient authority for his re-employment.

D. D. GAILLARD,
Acting Chairman,
and Chief Engineer.

Culebra, C. Z., Feb. 12, 1908.

Overtime.

CIRCULAR NO. 159:

Attention is called to the fact that certain employes have been permitted to earn an excessive amount of overtime pay. Employes who are allowed to work steadily for such long hours cannot have the same efficiency as employes whose work is confined to the prescribed eight hours, and a proper regard for the welfare and health of the men should limit the amount of overtime which any man is permitted to make.

Under the eight hour law overtime is permissible only in "extraordinary emergencies," except in the case of alien laborers. Overtime must be confined to such emergencies and limited to fifty hours for any employe in any one month. A record for reference must be kept in all cases where overtime work is authorized.

D. D. GAILLARD,
Acting Chairman,
and Chief Engineer.

Culebra Feb. 14, 1908.

PANAMA RAILROAD COMPANY.

Telegraph and Telephone Department,
Colon, Feb. 10, 1908.

Mr. Joseph Beaumont is appointed Signal Engineer in charge of Interlocking and Signal Work, with headquarters at Colon:

W. J. RODMAN,
Supt. Tel. and Tel.

Approved:
HIRAM J. SLIFER,
General Manager.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Feb. 19, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Baker, W. F.
Batalla, Wm.
Benhart, A H.
Benninger, Sherman A.
Boland, John
Brooke, Wm. S.
Brown, Warren J.
Catlin, W. R.
Clark, Arthur H.
Crago, Arvial
Edwards, Mrs. J R.
Fisher, A. D.
Fisher, E. P.
Foley, J. P.
Fribbons, H. C.
Gibson, Dr. W. C.
Grier, Samuel
Guilletson, Dr. Geo. (2)
Hahn, Barnet
Harrison, S. H
Joyce, P. R.
Kemper, S. V.
Kromer, W. H.
Kunce, Mrs. Oren
Long, J. H., (timekeeper)
McKay, Arthur (2)
McLean, James
Mains, Elmer
Morrisson, W. F. (house No. 86)
Mayhew, Henry
Nichols, Geo. W.
Ormachea, Antonio
Paulsen, Valbarg
Pearson, W. E. T.
Pompier, Raymond A (2)
Ponevats, Rudolf (boilermaker)
Porter, Israel H.
Reid, Miss Josephine, c o. H. M. Reid
Robb, M. L.
Sarrell, O.
Sheppard, F. K.
Simons, J.
Stanley, E. W.
Troxell, Marsellers
Van Orden, George (2)
Warren, A. L.
Williams, D.
Witmer, Wm. H.
Whyde, H. E.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending February 15:

FRESH MEATS.

		Price cts
Beef—Sirloin roast	per lb	25
Rump roast	do	25
Porterhouse	do	25
Rib-roast, short-cut, (not under 3½ pounds	do	18
Rib-roast, second cut	do	15
Chuck-roast	do	12
Soup	do	6
Stew	do	10
Corned	do	10, 12 14
Suet	do	6
Steaks—Sirloin	do	25
Porterhouse	do	25
Rump	do	25
Tenderloin	do	25
Round	do	14
Veal—Cutlets	do	21
Short-cut chops	do	20
Loin	do	13
Entire forequarters	do	9
For stewing	do	9
Mutton—Entire forequarters	do	9
Short-cut chops	do	18
Leg	do	14
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	28
Legs	do	18
Pork—Cuts	do	20

MISCELLANEOUS.

Livers—Beef	per lb...	9
Calf	each...	60
Sausage—Pork	per lb...	16
Sweet bread--Veal	each...	1 20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues	per lb...	12
Pigs' feet	do	8
Ox tongues	each...	90

POULTRY AND GAME.

Chickens, dressed (milk-fed),	each...	1.15
Fowls	do	†1.00
Ducks, fatted	do	1.05
Ducks, dressed	do	90
Turkeys	per lb...	25
Broilers (chicken frys)	each...	65
Squabs	do	35
Eggs, fresh	per doz...	36
Geese (10 lbs.)	each...	2.45

CURED MEATS AND LARD.

Bacon—Strips	per lb...	23
English breakfast, sliced..	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45

DAIRY PRODUCTS.

Butter—prints, prime quality	per lb ..	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	30
Gouda	do	30
Edam	each...	90
McLaren's	jar...	10, 15
Milk	quart...	15

FRUITS AND VEGETABLES.

Pineapples	each ..	20
Cranberries	per lb...	10
Apples	per lb...	5½
Apples, fancy table	per lb...	8
Beets	per lb...	5
Tomatoes	per lb...	*8
Celery	bunch...	18
Cucumbers	per lb...	28
White potatoes	do	2½
Cabbage	do	2½
Turnips, yellow and white	do	2½
Onions	per lb...	3½
Cauliflower	do	*6
Sauer kraut	do	3½
Squash, summer	do	5
Carrots	per lb...	4½
Sweet potatoes	do	2½
Egg Plant	do	9
Yams	do	2½

** Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries.

NOTICE OF PRICE CHANGES.

		Old Price. cts.	New Price. cts.
Bonton Rouge cigarettes	tin	1.00	75
Mixed nuts	lb	21	14
Boiled beef, 1s	tin	10	13
Hamburger steak and onions, ½s	do	9	11
Asparagus tips, 1s	do	26	20
Feather pillows, stock No. 33,451	ea	1 85	1.25
Cigars, Panetellas	do	5	3
Shoes, high, surveyor, tan, Blucher, stock No. 35,497	pr	7.35	6.90
Ideal stove lifters. stock No. 39,525	ea	31	5
Ginger snaps, N.B. Co.	lb	13	15

NEW ARTICLES

		Price. cts.
Nail buffers, olive and box woods, stock No. 38,879	each...	35
Hammocks, assorted colors, stock No. 38,881	do	2 50
Rugs, Baghestan, 2 ft. 3 in.x4 ft. 6 in., stock No. 38,882	do	3.90
Quilts, cotton, 62x88, stock No. 38,891	do	1.20
Quilts, cotton, 60x88, stock No. 38,892	do	1 15
Towels, cotton, 19x39, stock No. 38,893	do	15
Brushes, bath, stock No. 38,903	do	1.00
Brushes, bath, stock No. 38,904	do	45
Brooms, whisk, stock No. 38,905.	do	26
Brooms, whisk, stock No. 38,996.	do	20
Cuff Pins, stock No. 38,907	per pair	80
Links, stock No. 38,908	do	2 50
Bed spreads, stock No. 38,912	each...	1.55
Bed spreads, stock No 38,913	do	1 20
Cheese cloth, stock No. 38,914	yard ..	06
Bath robes, stock No. 38,915	each...	4.50
Gloves, silk, ladies', black and white, stock No. 38,916	per pair	1.45
Napkins, paper, stock No. 38,928.	dozen...	3
Quilts, fringe, 78x90, stock No. 38,943	each ..	1.70
Card cases, stock No. 38,944	do	90
Albums, post card, stock No. 38,946	do	2 35
Brushes, nail, stock No 38,947	do	20
Tooth powder, Calverts', carbolic, stock No. 39,121	per tin...	15
Hand mirrors, stock No 38,951	do	95
Slips, infants', stock No 38,952	do	60
Slips, infants', stock No. 38,953	do	45
Shirts, Chambray, stock No. 38,964	do	80
Sheets, Mohawk Valley, 72x90; stock No. 38,989	do	77
Challie, striped cotton, stock No. 38,994	per yard	20
Batiste, Milford cotton, stock No. 38,995	do	12
Brooms, felt, stock No. 39,113	each...	65
Sacques, women's, dressing, stock No. 39,114	do	1.10
Sacques, woman's, dressing, stock No 39,115	do	4 25
Sacques, women's, dressing, stock No. 39,123	each...	60
Sacques, women's, dressing, stock No. 39,125	do	58
Sacques, women's, dressing, stock No. 39,126	do	84
Flannel, cream, No. 1256, 30-in., stock No. 39,157	yard...	35
Caps, "Cheltenham," stock No. 39,161	each...	55
Caps, "Ascot" and "Milner Golf," stock No. 39 162	do	36
Caps, "Harvard Golf," stock No. 39,163	do	24
Manicure cases, stock No. 39,167.	do	1.10
Pitchers, enamel, stock No. 39,259	do	1 10
Dust pans and brushes, stock No. 39,266	do	28
Iron rust eradicator, Kingsbury's, stock No. 39,276	bottle...	23
Soap, Bay rum, stock No. 39,178.	each...	6
Shirts, olive drab, stock No. 39,181	do	3.65
Corsets, Parisina, stock No. 39 182	do	80
Veiling, chiffon, stock No. 39,184..	yard...	36
Wash cloths, 12½x12½, stock No. 39,192	each...	50
Shirts, with cuffs attached, stock No. 39,193	do	42
Hose, children's, stock No. 39,194	per pair	19
Hose, children's, stock No. 39,236	per pair	22
Corset cover embroidery, stock 39,197	each...	22
Top collars, embroidered, stock No. 39,214	each...	13
Shirts, children's, stock No. 39,217	do	46
Shirts, children's, stock No. 39,222	do	24
Shirts, children's, stock No. 39,224	do	16
Corset covers, stock No. 39,229	do	23
Corsets, La Grecque Bell, stock No 39,232	do	1 75
Socks, infants', lisle, stock No. No. 39,237	yard...	59
Corset cover embroidery, stock No 39,238	do	53
Soap, boxes, stock No. 39,245	each...	47
Soap, boxes, stock No. 39,246	do	20
Matting, straw, stock No. 39,249	yard...	35
Matting, straw, stock No. 39,751	do	25
Shirts, cream, pongee, stock No. 39,256	each...	1.00
Emblems, silk, embroidered, stock No. 39,271	do	5
Emblems, silk, embroidered, stock No. 39,272	do	3
Albums, post card, stock No. 39,277	do	1.05
Collar buttons, stock No. 39,279..	dozen	15
Collar buttons, stock No. 39,281..	do	45
Mirrors, hand, stock No. 39,288..	each...	25
Brushes, nail, stock No. 39,289	do	14
Sewing, silk veiling, assorted colors, stock No. 39,291	yard...	20
Duck and green peas (large)	per tin	30
Duck and green peas (small)	do	15
Cheese, cream, Pinxter	do	22
Grape juice, Welch's	bottle	24
Cigars—La Traviata	each...	32
La Bella Rosita	do	16
Gloria de Cuba	do	8
La Sevillance	do	10
Evidencia	do	12
Picoleta	do	10
Canal Zone	do	3
Hand bells, stock No. 39,331	do	20
Squeezers, lemon, stock No. 39,304	do	8
Squeezers, lemon, stock No. 39,372	do	18
Graters, nutmeg, stock No. 39,373	do	4
Irons, waffle, stock No 39,374	do	53
Boilers, wash, No. 78, stock No. 39,397	do	95
Boilers, wash, No. 79, stock No. 39 398	do	1.20
Clothes pins, stock No. 39,399	dozen...	2
Plates, soup, white enamel, stock No. 39,401	each...	20
Clocks, eight-day, bank regulators, stock No. 39,425	do	4.00
Pans, muffin, stock No. 39,429	do	20
Garters, men's, leather, stock No. 39,317	per pair	41
Bath mitts, stock No. 39,314	do	29
Pants, white, duck, stock No. 39,309	do	1.88
Mirrors, hand, stock No. 39,368	each	64
Mirrors, hand, stock No. 39,369	do	1.00
Towels, stock No. 39,423	do	9
Papeteries, stock No. 39,426	per box	16
Papeteries, stock No. 39,427	do	34
Papeteries, stock No. 39,428	do	20
Hats, straw, u1868, stock No. 39,431	each...	1.70
Drill, khaki, 27-in., stock No. 39,432	yard...	20
Duck—Linen, stock No. 39,435	do	75
Linen, stock No. 39,436	do	65
Union, stock No. 39,437	do	40
Union, stock No. 39,439	do	35
Linen, stock No. 39,441	do	50
Union, stock No. 39,442	do	30
Lawn, Glenmore, 36-in , stock No. 39,443	do	25
Linen, white, 36-in., stock No. 39,444	do	42
Sheeting, linen, 84-in., stock No. 39,445	do	1.30
Handkerchiefs, linen, hemstitched, stock No. 39,446	each...	12
Handkerchiefs, linen, hemstitched, stock No. 39,447	do	15
Handkerchiefs, cotton, hemstitched, stock No. 39,448	do	5
Handkerchiefs, linen, hemstitched, stock No 39,449	do	18
Handkerchiefs, linen, hemstitched, stock No. 39,451	do	22
Half-hose, men's, stock No. 39,466	per pair	12
Half-hose, men's, stock No. 9,468	do	40
Hose, ladies', stock No. 39,467	do	85
Pants, white, duck, stock No. 39,309	do	1.88
Shirts, army pattern, stock No. 39,181	each...	3.65
Suits, two-piece, in flannels, tweeds and serges, half-lined, stock No. 39,483	do	15.50

Concert.

By the I. C. C. Band at Cristobal, C. Z. Sunday, February 23, 1908, at 2 p. m.:

PROGRAM:

1 March..................*Flag of Victory*...Von Blon
2 Selection..............*Mlle. Modiste*........Herbert
3 Intermezzo..........*Little Kinkles*...........Bendix
4 Waltz....................*Vienna Beauties*.......Zeihrer
5 Piccolo solo.........*Canary Polka*.............Read

OLIVER KIMBALL

6 Novellette.............*Apple Blossoms*......Roberts
7 Fantasia.............*Tone Pictures of the North and South* ..Bendix
8 Sand Dance..........*Moonlight on the Suwanee*..........Friedman
9 Overture..............*Schauspiel*.................Bach
10 March................*General Mix-up, U. S. A*.................... Allen

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at the Hotel Tivoli, March 8.

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra
Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
Capt. George M. Hoffman, U. S. A., Assistant Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca.
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun.
Sydney B. Williamson, Division Engineer, Corozal.
E. A. LeMay, Chief Clerk.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra,
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Sliler, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

The following steamers have recently arrived at La Boca: February 8, *Palena*, from Valparaiso; February 13, *San Juan*, from San Francisco. Departures were: February 8, *Mexico*, for Valparaiso; February 13, *Acapulco*, and February 14, *Farley*, both for San Francisco.

The steamship *Ulriken* arrived at Cristobal February 18 with a cargo of cross-ties from Brunswick, Ga.

The steamship *Indianapolis* arrived at Cristobal on February 19 with a cargo of 2,088,000 feet B. M. lumber for the Isthmian Canal Commission and Panama railroad.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Colon	P. R.R.	Saturday	Feb.	15
Prinz Joachim	H.-A	Saturday	Feb.	15
Advance	P. R.R.	Thursday	Feb.	20
Sarnia	H.-A	Saturday	Feb.	22
Trent	R.-M.	Saturday	Feb.	22
Panama	P. R.R.	Tuesday	Feb.	25
Prinz Aug. Wilhelm	H.-A.	Saturday	Feb.	29
Allianca	P. R.R.	Monday	Mch.	2
Finance	P. R.R.	Saturday	Mch.	7
Siberia	H.-A	Saturday	Mch.	7
Oroya	R.-M.	Saturday	Mch.	7
Colon	P. R.R.	Thursday	Mch.	12
Prinz Joachim	H.-A.	Saturday	Mch.	14
Advance	P. R.R.	Tuesday	Mch.	17
Sarnia	H.-A	Saturday	Mch.	21
Tagus	R.-M.	Saturday	Mch.	21
Panama	P. R R.	Monday	Mch.	23
Allianca	P. R.R.	Saturday	Mch.	28
Prinz Aug. Wilhelm	H.-A.	Saturday	Mch.	28
Finance	P. R.R.	Thursday	April	2
Siberia	H.-A	Saturday	April	4
Magdalena	R.-M.	Saturday	April	4
Colon	P. R R.	Tuesday	April	7
Prinz Joachim	H.-A	Saturday	April	11
Advance	P. R.R.	Monday	April	13
Panama	P. R.R.	Saturday	April	18
Sarnia	H.-A	Saturday	April	18
Orinoco	R.-M.	Saturday	April	18
Allianca	P. R.R.	Thursday	April	23
Prinz Aug. Wilhelm	H.-A.	Saturday	April	25
Finance	P. R.R.	Tuesday	April	28

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Allianca	P. R.R.	Monday	Feb.	17
Prinz Aug. Wilhelm	H.-A	Tuesday	Feb.	18
Finance	P. R.R.	Sunday	Feb.	23
Prinz Sigismund	H.-A	Tuesday	Feb.	25
Oroya	R.-M.	Wednesday	Feb.	26
Colon	P. R.R.	Friday	Feb.	28
Prinz Joachim	H.-A	Tuesday	Mch.	3
Advance	P. R.R.	Wednesday	Mch.	4
Panama	P. R.R.	Monday	Mch.	9
Pr. Eitel Friedrich	H.-A	Tuesday	Mch.	10
Tagus	R.-M.	Wednesday	Mch.	11
Allianca	P. R.R.	Sunday	Mch.	15
Prinz Aug. Wilhelm	H.-A	Tuesday	Mch.	17
Finance	P. R.R.	Friday	Mch.	20
Prinz Sigismund	H.-A	Tuesday	Mch.	24
Colon	P. R.R.	Wednesdap	Mch.	25
Magdalena	R.-M.	Wednesday	Mch.	25
Advance	P. R.R.	Monday	Mch.	30
Prinz Joachim	H.-A.	Tuesday	Mch.	31
Panama	P. R.R.	Sunday	April	5
Pr. Eitel Friedrich	H.-A	Tuesday	April	7
Orinoco	R.-M.	Wednesday	April	8
Allianca	P. R.R.	Friday	April	10
Prinz Aug. Wilhelm	H.-A.	Tuesday	April	14
Finance	P. R.R.	Wednesday	April	15
Colon	P. R.R.	Monday	April	20
Prinz Sigismund	H.-A	Tuesday	April	21
Atrato	R.-M.	Wednesday	April	22
Advance	P. R.R.	Sunday	April	26
Prinz Joachim	H.-A	Tuesday	April	28
Panama	P. R.R.	Friday	May	1
Pr. Eitel Friedrich	H.-A	Tuesday	May	5

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Trent	R.-M.	Tuesday	Mch.	3
Oroya	R.-M.	Tuesday	Mch.	17
Tagus	R.-M.	Tuesday	Mch.	31
Magdalena	R.-M.	Tuesday	April	14
Orinoco	R.-M.	Tuesday	April	28

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company despatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Jamaican*, about February 22; *Texan*, about March 14, and *Asian*, about March 24.

The steamship *Olsen Mahoney* left Hoquiam, Wash., on Feb. 11, with approximately 1,500,000 feet of lumber, a small portion of which is for car repairs, and the balance for the Division of Material and Supplies' stock.

CANAL RECORD

Volume I. ANCÓN, CANAL ZONE, WEDNESDAY, FEBRUARY 26, 1908. No. 26.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed by the full name and address of the writer.

NOTES OF PROGRESS.

Rock Breaker for the Canal.

The Isthmian Canal Commission has ordered from Lobnitz & Co., Ltd , of Renfrew, Scotland, one of their 15-ton rock breakers for use in subaqueous excavation at the Pacific end of the Canal, between Miraflores and La Boca. The breaker, in brief, is a steel spar weighing about fifteen tons, mounted on a suitable barge, with a boiler, derrick, and hoisting engine. The end of the steel spar is armed with an armor piercing shell of chrome steel, and in operation the spar is raised and dropped until the rock it strikes is broken into small fragments to the depth of three or more feet. The barge is then moved a few feet and the operation is resumed. After an area of rock has been broken it is picked up with an ordinary ladder dredge, carried out to sea and dumped.

These breakers have done very successful work in the English harbor of Blythe, and in deepening the Suez Canal. Working with ladder dredges, rock has been removed at a cost of 75 cents per yard. No drilling or blasting, with its attendant heavy expense and frequent loss of life, is required.

Delivery of the breaker ordered by the Commission is promised at Colon, knocked down, in about five and a half months. It will be set up on the La Boca shipways and will be in operation, it is thought, in about seven months.

Arrival of the "E. G. Reynolds."

The sea-going tug *E. G. Reynolds* arrived at La Boca on the morning of February 23, with all well on board. This is the third of the vessels for the Isthmian Canal Commission that has recently made the voyage from the States around the Horn, for use at the Pacific end of the Canal. She sailed from New York, December 20, in command of Captain Gove, with a crew of 16 men. The trip occupied 66 days, 50 of which were actually spent at sea. Captain Gove reports having had stormy weather and rough seas for practically the entire voyage. It will be several weeks before she will be ready for service, as the damage caused by the rough weather she encountered, will have to be repaired.

New Suction Dredge.

A new 20-inch suction dredge will be put at work shortly at Gatun placing material in the dam. It is one of the three dredges of the same type, built by the Maryland Steel Company, knocked down and shipped to the Isthmus. The hull and operating machinery were assembled at the dry dock at Cristobal, where the dredge has been put together.

The hull, which is entirely of steel, was launched December 19, and since launching all the machinery and boilers have been installed. It is provided with a 20-inch centrifugal sand pump of the most approved design, which will be driven by two horizontal, direct-connected, compound condensing Ideal engines of 250 horse-power each, and has two Scotch marine boilers, 12 feet in diameter and 12 feet long. The suction is so arranged as to dig any kind of clay or sand to a depth of forty feet, and the machinery will pump material through floating pipes for a distance of from three to four thousand feet.

The other two suction dredges are well under way. The keel plate of the second dredge was laid on December 24; the hull was launched February 17, and the work of installing the machinery was immediately begun. The keel plate of the third dredge was laid on February 18, and the hull is now being erected. Each dredge will have quarters for the crew and the cost, including pipe line, is about $150,000 each. They were built from plans and specifications prepared by former Division Engineer F. B. Maltby.

Another Rebuilt Hopper Barge.

The eighth and the last of the steam clapets, or hopper barges to be rebuilt, was placed in commission at La Boca on February 19. This barge was one of the fleet abandoned by the old French company and was built originally by Lobnitz & Co., Limited, of Renfrew, Scotland. With the exception of two tail end shafts, one crank shaft and one boiler, all the original machinery is still in the vessel. She was equipped originally to use coal as fuel, but when the work of rebuilding began it was decided to install oil burners in place of coal under the boilers. This has been done. The oil is stored in two tanks aft and fed to the jets by a duplex pump, under a pressure of 20 pounds. This is the first vessel of the marine plant of the Isthmian Canal Commission to be equipped with oil burners. It is the intention to install similar equipment on all the steam vessels of the dredging fleet, in the near future.

On her recent trial trip in Panama bay, the barge developed a speed of 10 knots an hour, and all the machinery and oil burners stood the test satisfactorily. She has a capacity of 300 cubic yards. The total cost for rebuilding was about $25,000, and the vessel is now as good as new and capable of many years' service. A new barge of the same type would cost $60,000.

January Material and Supplies.

The January report of the Chief of the Division of Material and Supplies shows that the total amount of material disbursed by the division during the month was valued at $650,547.20, of which $634,658.84 was new stock, and $15,888.36 French stock. Nineteen ships arrived at Cristobal during the month with supplies of various kinds for the Commission, amounting to 16,267,362 pounds of freight; 4,894,286 feet B. M. lumber; 6,861 switch-ties and 81,317 cross-ties.

Among the supplies received were 1,098,500 pounds of dynamite, 50,000 blasting caps and 45,000 electric fuses. Explosives issued were 1,060,550 pounds of dynamite, 90,000 feet of triple tape fuse, 52,200 electric exploders and 40,000 quintuple caps.

At the various corrals in the Zone there were 442 mules, 196 horses and a daily average of 296 employes at work. Plans have been made to erect at Mount Hope, Gorgona and Empire, temporary iron buildings to store sheet steel, bar iron, etc., as a protection from the weather.

Railway Trackage.

The total amount of railway track on the Isthmus aggregates about 314 miles, divided equally between the Isthmian Canal Commission and the Panama Railroad Company.

The length of the main line of the Panama railroad from Colon to Panama is 47.5 miles, and of the La Boca branch (La Boca Junction to La Boca) 2.5 miles. There are also two sections of second track on the main line, one from Gatun to Culebra and one from Pedro Miguel to La Boca Junction. These are respectively 29.2 and 5.6 miles in length and make a double track railroad for about three-quarters of the distance across the Isthmus. At the Atlantic terminal of the road, the Colon yard has 7.9 miles of track and the Cristobal and Mount Hope yards 23.1 miles. At the Pacific terminal, the Panama yard has 8 miles and the La Boca yard 6 miles, and there are 15.9 miles of intermediate sidings at various stations in the Zone, making a total of 145.7 miles. In addition there are 4.3 miles of permanent and 7.4 miles of temporary track, a total of 11.7 miles in connec-

NOTES OF PROGRESS.

(Continued)

tion with the new location of the road. This gives the Panama railroad a total of about 157 miles.

The tracks operated by the Isthmian Canal Commission are largely in the Culebra Cut and the dumps connected therewith, the Culebra Division having 135 miles of the amount controlled by the Commission. Of these 135 miles in the Culebra Division, about 107 miles are in the Cut, 4.9 are in the Las Cascadas-White House yard; 7.2 in the Pedro Miguel yard; and there are 16 miles in the dumps at Tabernilla, Sosa-Corozal and La Boca. For the excavation of the locks and dams and spillway at Gatun there are about 10.3 miles of track. The Chagres Division has about 7 miles; there are about 2½ miles at Mindi and the same amount at La Boca. This makes a total of about 157 miles controlled by the Isthmian Canal Commission and a grand total on the Isthmus of 314 miles, or enough to make a six-track railway from Panama to Colon.

Highest Daily Shovel Records.

The subjoined table gives the highest daily records of steam shovels in the Department of Excavation and Dredging from February 1 to 17, inclusive:

Shovel No.	Date	Location	Amount of material removed (cubic yards)	Kind of material
251	Feb 12	Bas Obispo...	2,620	rock and earth
110	Feb. 5	Bas Obispo .	1,540	earth
220	Feb 11	Empire...	2,240	earth
131	Feb 7	Empire.........	1,938	rock and earth
222	Feb 14	Culebra	2,916	rock and earth
124	Feb 12	Culebra.........	1,820	rock
202	Feb. 10	Pedro Miguel	2,340	rock and earth
123	Feb 3	Pedro Miguel	1,180	earth
103	Feb. 14	Mindi......	1,950	earth
115	Feb 3	San Pablo.....	1,640	earth

Note—Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dippers of a capacity of 5 cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

Waste of Water.

Placards quoting Section 10 of the regulations governing the use of water in the Canal Zone (which provide a penalty for needless waste of water), have been posted throughout the Zone. This section was published in THE CANAL RECORD of January 1, 1908. The Superintendent of Public Works states in his January report that several employes of the Commission have been disciplined for wasting water, and one man who was found washing his clothes under an open faucet, was convicted of a violation of the regulations and fined $10 and costs.

The Superintendent of Public Works calls attention to the fact that a considerable saving of water would result if the heads of divisions would instruct their employes to report promptly any leaks discovered by them. He states that recently a leak occurred in a four-inch main at La Boca at five or six o'clock in the afternoon, and the leak was not discovered by the water inspector until the next afternoon. It is more than probable that the leak was noticed by some of the workmen around La Boca soon after the break occurred. If they had reported it, an unnecessary waste of water could have been avoided.

Views of a French Engineer.

Louis Bonard, a civil engineer of Paris, France, is at La Normandie. The Frenchman has returned from a visit to the Isthmus of Panama, and is on his way to New York, to go back to his beloved and only France.

"Est tes magnifique, you understan'? Zee work of zee canal is very marveleux. Zee Americains are zee great people zat will do what France—ah—you understand——"

Monsieur Bonard was full of enthusiasm over the progress at the Canal, and was convinced that the work would be finished within eight years at least. He said the Americans after they once decided upon a proposition, would go to work and accomplish the task; that there was no discussing the matter after the same had been decided upon. He said the progress American engineering had made over the achievements of that profession elsewhere were simply indescribable. He thought France or any other European country could not have undertaken the job and finished it, and that it was only a man of the type of President Roosevelt that could see the enterprise to a successful completion.—*Washington Herald*, Feb 3.

Zone Schools.

The report of the Superintendent of Schools for January shows that a second story was added to the Culebra white school during the Christmas recess. The addition consists of two regular school rooms, a recitation room and laboratory. It will relieve the congestion at that school, and will afford adequate facilities for the high school pupils attending there. The second story was practically completed in seventeen days.

A building for the colored school at Cristobal, constructed almost entirely of material from the old Catholic Mission church, was completed during January. This school is the largest in the Zone, having a total enrolment in January of 166 pupils, and the increased facilities were very much needed.

The school building at Colon beach was completed early in February, and school was opened on February 5, with an enrolment of 38 pupils, all in the first, second, third and fourth grades. Previous to the opening of this school, the only school available for the younger children of American employes of the Panama railroad living at Colon beach was the Cristobal school. While the Panama railroad constructed the Colon building, the school will be maintained from school funds of the Canal Zone.

The school at Cristobal had five pupils doing high school work during the month; at Culebra there were nine. The studies included in the high school grades are algebra, physical geography, ancient history, rhetoric, Spanish, English literature and advanced arithmetic. In addition to these, German is taught in the Culebra school, and work in botany and physics will be taken up later.

In the white schools of the Zone there was an enrolment of 468 pupils during January as compared with 398 during December, an increase of 18 per cent. The average daily attendance was 403, or 86 1 percent. of the enrolment.

In the colored schools the enrolment was 1,151, as against 1,067 in December. The average daily attendance was 69 per cent. of the enrolment

An organization of the colored teachers of the Zone was effected on February 8. Questions relating to school work were discussed and a program committee was appointed.

An opportunity was given in January to the parents of primary children in the Zone to express their preference relative to a forenoon session of four hours, extending from eight until twelve o'clock, or the present plan of a session of two and one-half hours in the forenoon and a two hour session in the afternoon. One hundred and fifty-four responses were received; forty of these being in favor of one session of four hours daily, and 114 in favor of the present plan of two sessions daily.

Dredging at La Boca.

The maximum daily output by the dredges in the La Boca Dredging Division for the week ending February 22, scow measurement, was as follows: February 19, dredge A-2, 8,100 cubic yards; February 17, dredge 14, 6,290 cubic yards; February 20, *Culebra*, 26 657 cubic yards. The total output for each of the three dredges for the same period was: Dredge A-2, 30,920 cubic yards; dredge 14, 28,990 cubic yards; *Culebra*, 128,001 cubic yards. The total combined output for the week was 187 911 cubic yards. As February 22 was Washington's Birthday, and a legal holiday, there were only five working days during the week.

Builders of the Hopper Barges.

THE CANAL RECORD:

In THE CANAL RECORD for October 30, 1907, there is an article on a rebuilt hopper barge, and it is gratifying to us as builders of the vessel to notice that when she was refitted much of the original work was found in good order, although, as stated in the article, she was built originally in Renfrew, Scotland, in 1885.

We would be very glad if, in any future articles about the plant built by us for the old company, which you are now utilizing, it would be possible for you to mention our name as builders of the plant, because there are other builders at Renfrew, Scotland. We however, are the only firm here who supplied any plant to the old company.

We follow with much interest the splendid work of which THE CANAL RECORD gives such a good idea.

LOBNITZ & CO., Limited.

Renfrew, Scotland, Jan. 28, 1908.

Work has been begun on the highway between Mount Hope reservoir and Gatun by the prisoners from the district of Cristobal, and is advancing rapidly under the direction of the Division of Municipal Engineering. This road will be the longest drive in the Zone, yet built by the Zone Government.

EXECUTIVE ORDERS.

American Citizens to Have Preference.

By authority of the President, it is ordered: On and after this date, the employment by the Isthmian Canal Commission of skilled laborers, clerks, and all others who have heretofore been known as gold employes of the Commission, shall be restricted to American citizens, except where American labor or service of the character required is not available.

Foreign employes now upon the pay rolls of the Commission shall not be affected by this order, save that in event of any reduction in force preference shall be accorded to American citizens.

WM. H. TAFT,
Secretary of War.

WAR DEPARTMENT,
Washington, D. C.,
Feb. 8, 1908.

Trial by Jury in Criminal Prosecution.

Under authority vested in me by law it is ordered:

1. In all criminal prosecutions in the Canal Zone wherein the penalty of death or imprisonment for life may be inflicted, the accused shall enjoy the right of trial by an impartial jury of the district in which the crime shall have been committed, to be chosen as follows:

2. The clerk of the circuit court, the district judge, and the collector of revenue for the administrative district within the circuit in which the crime shall have been committed, shall constitute a jury commission for that circuit. In the second judicial district, the district judge and the collector of revenue to be members of the jury commission shall be designated by the circuit judge, upon this order becoming effective and annually thereafter, or as often as a vacancy may occur in the jury commission.

3. Prior to the first day of the term of any circuit court, upon application of the prosecuting attorney, or by direction of the judge of the circuit in which the crime shall have been committed, the jury commission shall assemble and select the names of 60 male residents of the Canal Zone, between the ages of 21 and 65 years, in good standing and in full possession of their ordinary faculties, who shall have resided within the Canal Zone for not less than three months previously, and who shall be able to read, write, and understand the English language. Attorneys at law, physicians, ministers of an established religion, members of the military, naval, and police forces, and officers of the Commission of the rank and above the rank of resident engineers, shall be exempt from jury service. The names of the persons so selected shall be written by one of the commissioners upon slips of paper, folded so as to conceal the names, in a uniform manner and placed in a jury box.

4. Upon the first day of the term, unless an adjournment of the trial beyond the term shall be granted, the judge shall select from the jury box the names of thirty jurors to constitute the panel for the trial of the defendant. The said jurors shall thereupon be summoned by a written notice, served upon them by the marshal of the court, to attend at the trial of the defendant upon a day named. If it appear that any of the jurors whose names have been selected are absent from the Canal Zone, or incapacitated from other cause from attending as jurors, the judge, upon the application of the marshal, shall draw the names of other jurors and direct their summons until a panel of thirty jurors shall be assembled.

5 Upon calling the case for trial, twelve jurors shall be called to try the defendant in the order in which their names shall have been first drawn for summons by the circuit judge. Either side shall have the right to challenge any juror for cause, and, in addition thereto, the defendant and prosecuting attorney shall each have the right to challenge arbitrarily six of the said jurors. If the original panel of thirty shall be exhausted without securing twelve impartial jurors to try the defendant, the names of other jurors shall be drawn by the circuit judge from the jury box and such jurors summoned until the jury shall have been completed.

6 The jury so selected shall, under the instructions of the court, and in conformity with the procedure prevailing in the Federal courts of the United States, determine whether, under the facts as proved, the defendant is guilty or not guilty. They shall conduct their deliberations in secret, and shall return a verdict of guilty or not guilty, which must be unanimous. Sentence shall be pronounced by the court.

7. The circuit judge shall have the discretion to require the jury to be kept together and apart from the public from the time they are sworn until their verdict shall be returned. If they be kept together, suitable provision shall be made by the marshal of the court for their subsistence and lodging. The jurors shall be allowed a jury fee of $2 for each day actually summoned to court and engaged in the trial of a criminal action. The cost of subsistence and lodging of the jurors and the fees for the jurors' attendance shall be paid from the Treasury of the Canal Zone, upon a voucher duly approved by the circuit judge.

8. It shall in all cases be optional with defendants to be tried before a jury as provided for in this order, or under the procedure prescribed in Section 171 of the Laws of the Canal Zone. The accused shall, however, in person or through his attorney, file a written statement with the clerk of the circuit court before which his trial is to take place, on the first day of the term for which the trial is set, stating the procedure by which he desires to be tried. The procedure having been once selected by the accused cannot thereafter be changed, but must be followed with respect to any future trial of the accused for the same offense.

THEODORE ROOSEVELT.

The White House,
Feb. 6, 1908.
[No 750.]

Sojourners Lodge.

THE CANAL RECORD:

Sojourners Lodge No 874 A. F. and A. M., will meet at its hall in Colon on Saturday, February 29, at 8 p. m. in Extraordinary Communication for work in Third Degree. Master Masons in good standing are fraternally invited to be present.

JOHN LAGERQUIST,
Secretary.

Colon, Feb. 21.

OFFICIAL CIRCULARS.

Abuse of Half-Rate Privilege.

HEADS OF DEPARTMENTS AND DIVISIONS:

My attention has been called to the fact that the half-rate privilege covering transportation on the Panama railroad, extended to employes of the Commission and their families, is being abused. Numerous cases have recently been reported in which the requests have been presented by others than the employes to whom issued, and various other irregularities have also been noted

I desire that you furnish each employe responsible for issuing half rate requests a copy of the Chairman's circular of September 5, 1907, explaining in detail the procedure to be followed in issuing half rate requests.

Employes should be warned that these request blanks are not transferrable, and that any infraction of this rule will be considered sufficient cause for dismissal from the service.

Requests showing erasures or alterations will not be honored by ticket agents of the Panama railroad, and if it is desired to make any alteration a new request must be filled out.

Except in cases where the employe desires half rate transportation for members of his family mentioned, the request must not cover the transportation of more than one person.

Respectfully,
(Sgd.) D. D. GAILLARD,
Acting Chairman
and Chief Engineer.

Culebra, Feb. 15, 1908.

Weekly Statement of Vacancies.

HEADS OF ALL DEPARTMENTS AND DIVISIONS:

The Department of Labor, Quarters and Subsistence is receiving many applications daily for work from laborers and numerous other classes of applicants.

If there are vacancies, and the applicants are competent, a considerable saving to the Commission will be effected by perfecting arrangements to have as many as practicable of these men taken on rather than bring others down from the States.

In order to attain this, it is necessary that the Head of the Department of Labor, Quarters and Subsistence should receive, regularly, from each head of division or sub division, a statement of his requirements and vacancies.

Is is therefore ordered that, until further notice, a statement of all vacancies and needs be prepared weekly by each division head or subdivision head authorized to employ men, and forwarded directly to the Department of Labor, Quarters and Subsistence, so that when applications for work are received in Culebra, the Manager of the Department of Labor, Quarters and Subsistence will have information at hand which will enable him to refer the applicants to the divisions where their services may be needed. It is to be understood, of course, that the applicants' qualifications will be passed on entirely by the division employing the men, as heretofore.

D. D. GAILLARD,
Acting Chairman,
and Chief Engineer.

Culebra, C. Z., Feb. 13, 1908.

Murder at Cristobal.

Joshua Thompson, second officer on the Panama railroad steamship *Colon*, was killed by Julius Hart, a foreman on Dock 11, at Cristobal, on Monday morning last. The two men had a personal altercation during which Hart seized a piece of board and swinging it with both hands, struck Thompson on the left side, inflicting injuries which proved fatal about thirty minutes later. Hart was arrested and lodged in the Cristobal jail. A coroner's jury was summoned and delivered a verdict to the effect that Thompson had met his death at the hands of Hart as above described. Thompson was an American, and has been in the service of the *Colon* for about three and a half years. He leaves a wife and family living in New York. Hart is an American, and has a wife and family living in Colon.

SOCIAL LIFE OF THE ZONE.

General Patriotic Observance of Washington's Birthday.

The Zone schools had their patriotic observance of Washington's birthday February 21. Adhering to the rule adopted in the schools, not to interfere with the regular school work by the preparation of elaborate programs, the celebrations were of the simplest character, the singing of well known patriotic songs and short readings being the chief features. At Culebra, original essays on the life of Washington were read by the eighth grade pupils, school and patriotic songs and recitations were given, while the primary grade had its models and drawings of hatchets and cherry trees to exhibit.

The observance at Gatun was of triple nature, and commemorated the birthdays of Lincoln and Washington, together with the observance of Flag day. It being the regular day for the meeeting of the Gatun Woman's Club, the school expressed the wish to entertain the members as well as the mothers of Gatun. The celebration took place in the club room of the Commission hotel which was decorated with flags and garlands of the national colors for the occasion. The program consisted of recitations, patriotic songs, original papers and a flag drill. Refreshments were served, the older girls acting as assistants to the teachers. The Fortnightly club at Gatun gave a dance the same evening

The Pedro Miguel Woman's Club gave a colonial afternoon February 19, the program being under the direction of the literary department. The entertainment was in honor of Mrs. Stoddardt, an active member of the club who is removing to Gatun. Mrs. Schick gave a short talk on Mount Vernon; recitations were given by Mrs. Barnes and Mrs. Vacher, and songs by Mrs. Roberts.

The Culebra club had a good attendance at its regular meeting February 20. Reports from the various committees on the recent dance proved that function to have been the most successful entertainment ever given by the club. Mrs. Samuel Perry was elected president of the club in the place of Mrs. Wm. L. Sibert. The resignation of the vice-president, Mrs James Murray having been tendered and accepted, Mrs. E. M. Pullen was elected to that office. A short program consisting of piano solos by Mrs. F. W. Doty and readings by Mrs. Sumner Coolidge was given followed by a talk on club organization by Mrs. Mary Thompson Newton of Indiana, who was the guest of the club for the afternoon. Mrs. Newton has to her credit the organization of nearly three hundred associations and corporations in the United States, and gave interesting suggestions regarding committee and organization work.

The Empire Woman's Club held its meeting February 19. The president, Mrs. F. W. Miracle being absent in Taboga, Mrs. G. G. Burnett was called to the chair and the regular order of business was proceeded with. The reception and dance given by the club February 8, at the Commission club house, was well attended. About two hundred invitations had been issued. The early part of the evening was devoted to an informal reception followed by dancing. A short program was given consisting of recitations and violin solos by Miss Sophia Johnson, a vocal solo by Mrs. Adolph Faure, and a selection by the ladies' chorus. Refreshments were served and dancing was continued until midnight, when the guests dispersed.

The Ancon Woman's Club held its regular social meeting in the ball room of the Hotel Tivoli February 19, which was well attended. Under the newly adopted by-laws, the vice-president of the club has charge of the programs to be presented, in connection with the chairmen of the different departments. The program on Wednesday consisted of songs by Mrs. Ruggles and Miss Konshaw, violin solos by Miss LeMay, and a paper on "Woman's Clubs in Germany," by Miss Beattie. Mrs. Hiram J. Slifer, of the Cristobal club and several others were guests of the afternoon.

The arrangements for the flower dance are completed, and the large number of tickets already disposed of shows great interest in the entertainment. Tickets must be presented at the door on entering the Hotel Tivoli on the evening of February 29. The ball room will be elaborately decorated. There will be a special train run from Panama to Empire after the dance on which a nominal fare will be charged.

The Culebra Social club gave a dance at the Commission club house February 21. This club is one of the oldest social organizations in the Zone, having been established in September, 1906, for the purpose indicated by the name.

The Culebra Sunday school had a basket picnic in the orange grove near Miraflores February 22. Special trains were run for the occasion and the day was enjoyed by a large number of children and young people attended by their elders.

The Paraiso club gave a "Limerick" tea February 19 when a musical program was rendered by Mrs. Downs, Mrs. Richards, Mrs. Lane and Mrs. and Miss Macombs. The committee in charge of the afternoon was Mrs. G. H. Kerslake, Mrs. Lane and Mrs. Robert Smith.

The Ancon Amusement Association has engaged the Reohr Concert Company for a concert to be given at the Metropole Theatre, Panama, on Friday, February 28, at 8.15 p.m. This company was brought from the States by the Y. M. C. A. to give concerts in the Commission club houses. The members are Ruth Anderson Reohr, violinist; Katherine Rogers, soprano; Freida Ohling, contralto, and Laura Linton Cope, pianiste. Tickets and any information desired can be obtained of J. M. Maguire, acting secretary, Ancon, until noon of February 28, at which time all remaining seats will be placed on sale to the general public.

Trip to Pearl Islands.

THE CANAL RECORD:

A party of about 100 Knights of Pythias and their friends left Panama early Friday night, February 21, on the steamer *Boyaca* for the Pearl Islands. After a fine moonlight trip they landed at Rey Island at about 9 o'clock Saturday morning, at the village of San Miguel. This town has a population of about 1,000 and covers about 30 acres. The natives engage in fishing and farming for their living, and their houses are almost entirely made of bamboo, covered with thatch. The landing of this large body of white people was quite a surprise to the natives, who turned out in force to welcome the party. They proved to be very hospitable, and the Sir Knights were made to feel entirely at home. The landing at the island and re-embarking had to be made in the native boats on account of the shallow water around the island. The party left at 10 o'clock Saturday night and after another moonlight trip, landed at Taboga Island at 6 o'clock Sunday morning. Sunday was spent in roaming over Taboga, and in surf bathing. The party returned to Panama in time to catch the evening train for the line. The Knights were unanimous in declaring that Mr. G. W. Woods of Cristobal deserves much credit for the manner in which he conducted the excursion. F. C. SOMMERS.

Culebra, Feb. 24.

Red Men's Celebration.

THE CANAL RECORD:

On Washington's Birthday the Improved Order of Red Men of the Canal Zone were out in full force to celebrate the anniversary of their first sachem, "The Father of Our Country."

A special train left Panama at 6 a.m., stopping at all stations in the Zone. At Cristobal, the Committee had provided carriages decorated with the flags of the United States and emblems of the order, for use of the ladies and children.

The I. C. C. band led the procession immediately followed by the Daughters of Pocahontas on a large float especially decorated for the occasion. The Tribes followed in the order of their institutions dressed in their proper regalia. Seven tribes were represented, and one Council. Col. B. B. Duncan of Las Cascadas was captain of the day. The Indians trailed through the hunting grounds of Cristobal and Colon and then passed the Hospital grounds to Cocoa Grove and Palm Beach. Here a shady place had been selected for the day's outing.

Beef, mutton and pork had been barbecued by men of experience, and judging by the way the Red Men and their guests devoured "corn and venison," it was shown the viands had been well prepared.

After the feast, many sports were indulged in. The Tribes vied with each other in producing their best athletes, beginning with races as follows: 75 yd. dash (men), 75 yd. dash (ladies), 75 yd. dash (boys), 75 yd. dash (girls), lemon races, potato races, 3-legged races. So many contestants were entered in each event that it was necessary to run a number of heats, and have a final heat decide the winner.

The most exciting sport of the day was the tug of war, each tribe having a team which they thought must win, but Cocles' Tribe No. 3 proved the strongest and won. Many of those present went bathing, and at the close of the day, all present agreed that a most pleasant day had been spent.

At 8 o'clock in the evening they reassembled at Fraternal Hall, where a ball was given. The hall was crowded to its utmost capacity, the ball splendidly managed and dancing was continued until 12 o'clock, when the members and their guests boarded the special train at one o'clock and returned to their own hunting grounds.

Ancon, Feb. 24. E. E. PRICE.

COMMISSION BUILDINGS.

IV.

The Insane Asylum at Ancon.

By P. O. Wright, Jr., Architect.

A group of buildings for an insane asylum has recently been erected near Panama adjacent to the Ancon hospital, for the care of the insane patients for whom the Commission has to provide. It is a settlement complete in itself, having its own staff of doctors and nurses, with facilities for cooking, and with different types of buildings for the housing of both men and women of varying degrees of insanity.

Until October last, the patients, 121 in number at that time, were quartered at Miraflores in a group of old French buildings which had been repaired by the Commission. These buildings were neither suited to the needs of the patients nor was their location desirable. Furthermore the buildings were needed for a labor encampment in the construction works of the Canal.

The system consists of 12 buildings of the following types:

1. *An Administration building.*—This is two stories in height surrounded by verandas on both floors. It contains quarters for the doctors and nurses, the office, storerooms, linen rooms and a dining room for the staff of the asylum.

2. *A central kitchen.*—The Administration building is connected by a passageway with the kitchen which is a one story building, having a store-room and a dormitory for the kitchen servants. In this kitchen the food is prepared for all the inmates of the asylum.

3. *A dining room building.*—This building is provided for the mildly insane patients who are considered safe to be taken out of their quarters.

4. *Two ward buildings for men.*—These wards are two stories in height, both, long and narrow, of 32 and 44 beds capacity respectively, for mildly insane men. They are surrounded entirely by verandas, access to which is allowed only to the patients in certain protected portions, the verandas being provided to permit of effective screening and to meet the needs of the tropical climate.

5. *A woman's ward.*—This building is one story in height, and has a capacity of 16 beds, with provision for a nurse's office, linen and clothes room and a dining room. This is for the mildly insane women and they are allowed access to the verandas.

6. *Men's ward.*—This is one story in height, and is built around three sides of a rectangle in the form of three separate buildings, each surrounded by and connected with the others by verandas. Two of these buildings are wards for patients, with a capacity of 20 beds each. The third of the group contains a dining room, two nurses' offices—one for each ward—toilets for the nurses, clothes and linen rooms. These wards are for the mildly insane men who are allowed access to the verandas.

7. *Cell buildings for men and women.*—These are two buildings, each with 14 cells for the men, and two buildings, each with 10 cells, for the women. They are of the same type, differing only in length, and are for the violent patients. The cell buildings for the men are arranged as follows: Two rows of 7 cells, each about 8½ by 10½ feet, are placed opposite each other 20 feet apart, forming a room 20 feet wide by over 60 feet long, the ends of which are enclosed with iron gratings extending from floor to ceiling which is 15 feet high. The electric lights are placed near the ceiling so as to be inaccessible to the patients. With this arrangement of cells there is secured between them an open space which is more in the nature of a veranda than an enclosed room. It is used for a recreation and dining room. The cells and this open space are entirely surrounded by a screen veranda 6 feet wide. This is not intended for the use of the patients, but to permit of an effective method of screening the building, in order that the screening can not be injured by the patient; also as a protection against the sun and rain. Each cell is provided with a barred window opening on the veranda and with a door to the recreation room. The upper portion of the walls of the building are left open for ventilation with a protection of heavy slat work spaced six inches apart. Each cell is provided with a stationary wooden bunk built in so that the patients cannot destroy their beds. The toilet and bath rooms are arranged at the ends of the rows of cells with the entrances from the recreation room.

8. *Attendants' quarters.*—This is a one story building arranged as a ward to accommodate 12 men, with a veranda across the front and toilets in the rear.

All buildings are of frame construction, elevated from the ground by means of wood posts. They are screened and are provided with electric lights and sanitary plumbing, the floors of toilets and bath rooms being of concrete. Provision has been made for 180 patients in addition to the staff, and the whole settlement is surrounded by an 8-foot barbed wire fence having but one entrance.

The Leper Colony at Palo Seco.

When the American Government took control of the Canal construction, one of the features which had to be considered in connection with the work was the care and maintenance of lepers There were eleven of them isolated in a building on the outskirts of the city of Panama who were cared for by the Panamanian Government, and others in the cities of Panama and Colon, and in the Canal Zone. Under certain concessions by the Panamanian Government, the Commission took charge of the lepers of the Republic at an agreed per diem payment. Those within the Zone who preferred to return to their native countries outside of the Isthmus, were allowed to do so. The remainder were taken care of and until recently have been isolated at one of the unfrequented stations along the line of the Panama railroad. There are now seventeen of them, eight men, five women and four children, at a colony of their own at Palo Seco, a very beautiful place about six miles from the city of Panama overlooking the bay. They are entirely separated from the city by the bay, the Rio Grande and Farfan rivers. There are no lepers, except those in this asylum, in the Canal Zone.

This site was selected for the settlement on account of its suitability, and its accessibility by boat only. Adjacent thereto is a beach which can be approached by small boats at almost any time. The ground where the colony is situated is high and healthful, and an abundance of fruit may be had for the picking. A portion of the land has been cleared of trees and brush and the buildings are so located that each of the inmates has a piece of ground which can be used for raising vegetables and chickens. The settlement consists of eight buildings—four leper houses, a hospital, a residence for the superintendent of the colony, attendant's quarters and a chapel. These buildings are of frame construction, are elevated from the ground by wood posts with space for ventilation beneath, and have galvanized iron roofs with large ventilators. They are constructed in a manner similar to other Commission buildings.

Provision has been made in the hospital building for the care of both men and women, with quarters for an attendant, and a doctor's office. All the buildings are provided with verandas and the hospital is entirely surrounded with them. Each of the leper houses consist of four rooms sixteen feet square, arranged in a row, with verandas running the entire length both front and rear. The cooking is done with braziers on the verandas or out of doors, which is an approved and agreeable method of cooking among the poor people generally upon the Isthmus.

The advantages both to the lepers and to the Commission are obvious in having them in an isolated colony situated as this is, where they are encouraged to cultivate the land and become in a measure self-supporting, with something useful by which to occupy their time.

The settlement is in the jurisdiction of the Sanitary Department and under the supervision of the Director of Hospitals.

Would-Be Murderer Killed.

Charles Simmons, a Jamaican, 31 years old, was shot and instantly killed, while resisting arrest, by Policeman Angus McCormack at Gatun on the evening of February 22. He was an escaped prisoner, who had attempted to kill a Jamaican girl named Irene Blackburn at Bohio, February 21, by shooting at her with a revolver. The bullet missed her but hit a man named Martin Eastwick in the arm. The next day at Gatun, at the residence of Major Chester Harding, Division Engineer, he shot a laundress, Maria Williams, inflicting a dangerous wound. In Simmons' pockets was found a letter addressed to his "Friends and Enemies" stating that he intended to kill Irene Blackburn, Maria Williams and her husband, and then commit suicide. Maria Williams and Martin Eastwick were taken to Colon hospital and it is thought that both will recover.

A slight accident occurred a few days ago in the tunnel which is under construction at Miraflores on the new location of the Panama railroad. It was caused by a fall of rock from the side which was loosened by a blast and which knocked out the post underneath the centre and allowed the roof to fall. The fall occurred about two hours after the blast. The men were injured by being caught in the falling rocks and confined for about fourteen hours. They were taken to Ancon hospital.

INJURED CANAL EMPLOYES.

A Bill to Compensate Them in Accordance with the President's Recommendation.

Mr. Sterling of Illinois, introduced in the House of Representatives on February 10, the following bill which was referred to the Committee on the Judiciary and ordered to be printed:

A Bill to Compensate Civilian Employes for Personal Injury in Line of Service:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the United States shall be liable to its civilian employes whose compensation is or probable earnings are less than at the rate of $2,500 per annum, including as well those employed under the Isthmian Canal Commission and by the Panama Railroad and Steamship Line, for an injury or death by accident arising out of or in course of the injured person's employment. No compensation shall be paid under this Act for the first thirty days of incapacity from such injury or where the injury is due to serious and willful misconduct on the part of the employe injured. All questions of misconduct shall be determined by the Secretary of Commerce and Labor.

SEC. 2. That when death results from the injury provided against in the first section of this Act, compensation shall be made by the United States as follows:

(a) If the employe leaves any relatives wholly dependent on his earnings, a sum equal to such earnings during the period of five years next preceding his injury, but not less than $2,000 nor more than $5,000 shall be allowed. If the period of his employment has been less than five years, the amount to be paid shall be computed as for five years on the basis of his average earnings during the period of such employment, but subject as to amount to the foregoing limitation.

(b) If the employe leaves any relatives partially dependent on his earnings, a sum not exceeding such earnings during the two years next preceding his injury, but not more than $1,800 shall be allowed, the total amount of such payments to be determined by the Secretary of Commerce and Labor and to be proportioned to the degree of dependence he shall find. If the period of his employment has been less than two years, the amount to be paid shall not exceed his average earnings computed as for two years during the period of such employment, but subject as to amount to the foregoing limitation.

(c) Payments made to dependent relatives shall be divided among them in such proportions as may seem equitable to the Secretary of Commerce and Labor under the circumstances of the case

(d) If the employe leaves no relatives dependent upon him, the reasonable expenses of his medical attendance and burial, not exceeding $150, shall be paid.

SEC 3. That where incapacity for work results from such an injury as is referred to in section one hereof, the employe so injured shall be entitled to receive a monthly payment during the period of incapacity, computed at a rate equal to 60 per cent. of his average daily or monthly earnings during such part of the preceding twelve months as he may have been employed, but such monthly payment shall not exceed $50 Where incapacity for work resulting from an injury described in section one of this Act has continued for twelve months the Secretary of Commerce and Labor shall cause an examination to be made as hereinafter provided for, and, if it appear to him that such incapacity is then permanent, he shall direct that the monthly payment cease, and that in place thereof the injured employe be paid a sum equal to ten times the annual amount payable to the employe at the rate received by him at the time of such examination.

SEC. 4. That whenever an accident occurs to any employe embraced within the terms of the first section of this Act, and which results in death or a probable incapacity for work, it shall be the duty of the official superior of such employe to at once report such accident to the head of his Bureau or independent office, and his report shall be immediately communicated through regular official channels to the Secretary of Commerce and Labor. Such report shall state, first, the origin and nature of the accident and the probable duration of the injury resulting therefrom; second, whether the accident arose out of or in the course of the injured person's employment; third, whether the accident was due to serious and willful misconduct on the part of the employe injured; fourth, any other matters required by such rules and regulations as the Secretary of Commerce and Labor may prescribe The head of each Department or independent office shall have power, however, to charge a special official with the duty of making such reports.

SEC. 5 That in the case of any accident which shall result in death, the persons entitled to compensation under this Act or their legal representatives shall, within ninety days after such death, file with the Secretary of Commerce and Labor an affidavit setting forth their relationship to the deceased and the ground of their claim for compensation under the provisions of this Act. This shall be accompanied by the certificate of the attending physician setting forth the fact and cause of death, or the nonproduction of the certificate satisfactorily accounted for In the case of incapacity for work lasting more than thirty days, the injured party or his legal representative desiring to take the benefit of this Act shall, within a reasonable period after the expiration of such time, file with his official superior, to be forwarded through regular official channels to the Secretary of Commerce and Labor, an affidavit setting forth the grounds of his claim for compensation, to be accompanied by a certificate of his attending physician as to the cause and nature of the injury and probable duration of the incapacity, or the nonproduction of the certificate satisfactory accounted for If the Secretary of Commerce and Labor shall find from the report and affidavit or other evidence produced by the claimant or his legal representatives, or from such additional investigation as the Secretary of Commerce and Labor may direct, that a claim for compensation is established under this Act, the compensation to be paid shall be determined as provided under this Act and approved for payment by the Secretary of Commerce and Labor

SEC 6 That the Secretary of Commerce and Labor shall have power, whenever satisfied a change should be made, to increase or diminish, in accordance with the provisions hereof, the the payment made, or to discontinue compensation altogether The employe shall, whenever and as often as required by the Secretary of Commerce and Labor, submit himself to medical examination, to be provided and paid for under the direction of the Secretary, and if he refuses to submit to or obstruct such examination his right to compensation shall be lost for the period covered by the continuance of such refusal or obstruction.

SEC 7 That to seek to obtain by fraudulent means or to accept benefits under this Act to which the person is not entitled shall be deemed a misdemeanor on his part and punishable by a fine of not more than dollars or by imprisonment for not more than , or both

SEC 8 That payments under this Act are only to be made to the beneficiaries or their legal representatives other than assignees and shall not be subject to the claims of creditors

SEC. 9 That the United States shall not exempt itself from liability under this Act by any contract, agreement, rule, or regulation and any such contract, agreement, rule, or regulation shall be pro tanto void.

SEC. 10. That the Secretary of Commerce and Labor shall, immediately upon the approval of this Act, proceed with the necessary work incident to the putting of it into operation, and there is hereby appropriated the sum of dollars, out of any money in the Treasury of the United States not otherwise appropriated, to be immediately available for the payment of cost of administering and executing this law.

SEC 11 That this Act shall only take effect as to the right to receive compensation for any damages from accidents as to those occurring on and after July first, nineteen hundred and eight.

SEC. 12 That all Acts or parts of Acts in conflict herewith or providing a different scale of compensation or otherwise regulating its payment are hereby repealed.

On March 5, Ash Wednesday, there will be services at St. Luke's church, Ancon, in the morning at 8.45, a childrens' service at 3.45 p. m., and evening prayer at 4.15 p. m

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

CRISTOBAL.

Membership ticket No. 511 of the Cristobal Y. M. C. A has been lost The return of the ticket, or any information concerning it, will be greatly appreciated. Address Secretary of Y. M. C. A., Cristobal.

The standing of the players in the pool tournament, which closed last week, is as follows:

	Won.	*Lost.*	*Per cent.*
Thomas.................	15	2	882
Eno....................	13	4	765
Ponton.................	13	4	765
De Grummond...........	12	5	706
Gilmartin..............	12	5	706
Fetrowsky..............	12	5	706
Muenchow..............	10	7	588
Williams...............	10	7	588
Callahan...............	10	7	588

Dr. Eno won the play-off for second place.

The smoker on Thursday night, Feb 20, was a great success. The program consisted of club swinging by Robert Gourlie, zither solos by Charles Wolf, speech by F. C. Freeman, songs by J. C. Pompeji, and a dramatic reading by E. McKenzie. Refreshments consisted of cob pipes, cigars and fruit punch. Mr. Charles Ponton presided.

The list of second bowling team candidates is as follows: Cleary, Wolnitzek, Robertson, Wolf, Ponton, Shipley, McKenna, Whitley, Kreplever, Koerner, Hyatt, Burdge, Gillmore and Murray. Charles Wolf was elected captain, and Charles Ponton member of the prize committee.

The Sunday Club presents the following schedule of addresses for the month of March:

March 1—"Three Elements of the Christian Life," by the Ven. Archdeacon Bryan.

March 8—"Four of a Kind," by Major J. W. Galley of the Salvation Army.

March 15—(Subject to be announced), by Mr. W. F. Christian.

March 22—"Things Fundamental," by Mr. A. Bruce Minear.

March 29—"The Price of a Man," by Mr. H. L. Stentz.

Special music will be provided for each afternoon.

EMPIRE.

Wednesday evening, February 19, the Empire bowling team defeated the Gorgona team at Gorgona by a score of 3 to 0.

Saturday evening, February 22, the Anderson Concert Company from the States entertained the people of Empire with a musical, which was enjoyed by the large audience present.

On Tuesday afternoon, February 25, Mr. C. M. Gifford, assistant secretary, held a meeting of the Juniors of Empire for the purpose of opening a membership for boys in the Y M C. A Baseball, basket ball, and bowling teams will be organized, and the boys of Empire and Las Cascadas are invited to become members in order that they may enjoy the privileges of the Y. M. C. A.

Much interest is being manifested in the arrangements for a pool and billiard tournament, and all members who wish to compete are requested to confer with Mr. E. C. Mills, director of pool and billiards. Prizes will be offered for best players of both games.

Beginning with this week, Mr. Gifford will conduct systematic classes and recreative sport in the gymnasium hall

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Isthmian Baseball League.

Scores, February 22, 1908:

At Ancon Park: Ancon, 8; M. P & M , 0,

At Empire Park: Empire, 8; Kangaroos, 3.

At Gorgona Park: Culebra, 10; Gorgona, 5.

Scores, February 23, 1903:

At Ancon Park: Ancon, 9: Kangaroos, 8.

At Empire Park: Empire, 9; Gorgona, 0.

At Gorgona Park: M. P. & M.., 4; Gatun, 3.

STANDING OF THE LEAGUE.

February 24, 1908:

	Played.	*Won.*	*Lost.*	*Per cent.*
Empire..............	10	8	2	800
Ancon...............	8	6	2	750
M P. & M...........	11	8	3	727
Culebra.............	10	6	4	600
Kangaroos...........	10	4	6	400
Gatun...............	8	1	7	125
Gorgona.............	9	0	9	000

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending February 15:

FRESH MEATS.		*Price.* CTS
Beef—Sirloin roast	per lb	25
Rump roast	do	25
Porterhouse	do	25
Rib-roast, short-cut, (not under 3½ pounds	do	18
Rib-roast, second cut	do	15
Chuck-roast	do	12
Soup	do	6
Stew	do	10
Corned	do	10, 12 14
Suet	do	6
Steaks—Sirloin	do	25
Porterhouse	do	25
Rump	do	25
Tenderloin	do	25
Round	do	14
Veal—Cutlets	do	21
Short-cut chops	do	20
Loin	do	13
Entire forequarters	do	9
For stewing	do	9
Mutton—Entire forequarters	do	9
Short-cut chops	do	18
Leg	do	14
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	28
Legs	do	18
Pork—Cuts	do	20

MISCELLANEOUS.		
Livers—Beef	per lb...	9
Calf	each...	60
Sausage—Pork	per lb...	16
Sweet bread—Veal	each...	1 20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues	per lb...	12
Pigs' feet	do	8
Ox tongues	each...	90

POULTRY AND GAME.		
Chickens, dressed (milk-fed)	each...	1 15
Fowls	do	†1 00
Ducks, fatted	do	1.05
Ducks, dressed	do	90
Turkeys	per lb...	25
Broilers (chicken feys)	each...	65
Squabs	do	35
Eggs, fresh	per doz...	36
Geese (10 lbs.)	each...	2 45

CURED MEATS AND LARD.		
Bacon—Strips	per lb...	23
English breakfast, sliced	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45

DAIRY PRODUCTS.		
Butter—prints, prime quality	per lb ..	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	30
Gouda	do	30
Edam	each...	90
McLaren's	jar...	10, 15
Milk	quart...	15

FRUITS AND VEGETABLES		
Pineapples	each	20
Cranberries	per lb...	10
Apples	per lb...	5½
Apples, fancy table	per lb...	8
Beets	per lb...	5
Tomatoes	per lb...	*8
Celery	bunch...	18
Cucumbers	per lb...	28
White potatoes	do	2½
Cabbage	do	2½
Turnips, yellow and white	do	2½
Onions	per lb...	3½
Cauliflower	do	*6
Sauerkraut	do	3½
Squash, summer	do	5
Carrots	per lb...	4½
Sweet potatoes	do	2½
Egg Plant	do	9
Yams	do	2½

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* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from Commissaries*

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	*New Price.* CTS.
Chow-Chow, 5-gal. kegs	keg	$3 90	$2.90
Pickled onions, 5-gal kegs	do	5 20	4.20
Gherkins, 5-gal kegs	do	4 60	3 20
Mellin's Food	bot	65	55
Dill pickles	do	32	25
Pearline	pkg	7	10

NEW ARTICLES		*Price.* CTS.
Suits, two-piece, in flannels, tweeds and serges, half-lined, stock No 39 484	each...	17.00
Suits, two-piece, in flannels, tweeds and serges, half-lined, stock No. 39 487	do	17 50
Buttons, gold link, stock No. 39,503	per pair	48
Ice cream custard powder, Burnham's	pkge	9
Window brushes, stock No. 39,511	each ..	33
Whisk brooms stock No 39,512	do	13
Rolling pins, stock No 39 513	do	10
Bird cages, japanned, stock No 39,517	do	1 90
Bird cages japanned. stock No 39,518	do	64
Bird cages, japanned, stock No 39,519	do	52
Steel roasters, stock No 39,522	do	33
Cake-makers, Universal, stock No. 39 523	do	1.67
Lemon juicers, glass stock No. 39 524	do	7
Cake turners, stock No 39,534	do	4
Flour sifters, stock No. 39 535	do	10
Drip pans, extra deep, stock No. 39 537	do	20
Drip pans, stock No 39,539	do	13
Drip pans, stock No 39 541	do	8
Water pitchers, glass, 1-qt., stock No. 39,543	do	36
Water pitchers, glass, 1½-qt., stock No 39,544	do	45
Water pitchers. glass, 2-qt., stock No 39,545	do	53
Drinking tumblers, thin, ½-pt., stock No 39,546	do	4
Drinking tumblers, thin, 1-pt., stock No. 39,547	do	11
Drinking tumblers, thin, 1½-pt., stock No 39,548	do	25
Sherry glasses, stock No. 39 549	do	11
Cordial glasses, stock No. 39,551	do	11
Wine glasses, stock No. 39,552	do	11
Champagne glasses. stock No. 39,553	do	8
Claret glasses, stock No. 39,554	do	11
Mop sticks, stock No. 39 568	do	10
Shoes, men's, tan, storm calf, stock No 39,318	per pair	3.20
Shoes, men's, white, canvas, Blu, stock No 39 514	do	1 75
Shoes men's, white, buck Blu, stock No, 39,515	do	3.75
Shoes, ladies' kid sandals, stock No 39,508	do	1.55
Shoes, children's, pearl sandals, stock No 39,572	do	90
Shoes, misses, pearl sandals, stock No 39 573	do	1 00
Shoes, ladies' boudoir slippers, without heels, stock No 39,566	do	1 00
Shoes, ladies' boudoir slippers, with heels, stock No 39,567	do	1 10

Unclaimed Packages.

The following is a list of packages that have been forwarded from New York to Isthmian Canal Commission and Panama railroad employes, and that are waiting to be claimed at the freight house at Colon. Applications of claimants should be made through the freight agent, P. E. Cruchley. The owners of these packages will have to make application for free customs entry in connection with Circular No. 85. or in the alternative, pay duty to the Panama Government customs on the value of the contents of the packages, before delivery can be effected.

	Charges to collect
Way-bill No. 153—H T Viernan, Gorgona, 1 package, ex *Finance*; Dec 23, 1907	$3.00
Way-bill No 153—G H Beldon, Cristobal, 1 package books, ex *Finance*; Dec. 26, 1907	3.25
Way-bill No 159—J H. Guinther, Cristobal, 1 piece canvas, ex *Advance*; Jan, 6, 1908	1.00
Way-bill No. 168—R. C McCormick, Colon, 1 package, ex *Finance*; Jan 21, 1908	60
Way-bill No 175—J M Matchette Las Cascadas, 1 box, ex *Advance*; Jan 2, 1908	1 00
Way-bill No 156—Dr. J. C. Terry, Ancon, 1 package, ex *Colon*; Dec. 30, 1907	1.00
Way-bill No. 168—Howard R Clarks, Gatun, 1 box piano, ex *Finance*; Jan 21, 1908	12 14
Way-bill No 171—Howard R. Clarks, Gatun, 2 cases and 1 package, ex *Colon*; Jan 26, 1908	3 00
Way-bill No 153—Manuel Diez, Panama, 1 package, ex *Finance*; Dec. 26, 1907	1.00
Way-bill No 89—J H. Higgins, Cristobal, 2 cases picture machinery, ex *Colon*; June 29 1907	3.00
Way-bill No. 148—Ed W Jackson, Matachin, 1 package, ex *Panama*; Dec 12, 1907	3.00
Way-bill No 162—E Arosemena, Panama, 1 crate lawn swings, 1 cart wheels, ex *Panama*; Jan. 10, 1908	4 00
Way-bill No. 165—Jas. Vaugher (or Vaughn), Culebra, 1 box, ex *Panama*; Jan 15, 1908	1 00
Way-bill No 159—Samuel Nathan, San Pablo 1 box nut butter, ex *Advance*; Jan. 6, 1908	1.75
Way-bill No ——W. H Bolen, Culebra, 1 package	3 00
Way-bill No 177—Dr E. C. Metgrander, Culebra, 1 case drugs, ex *Panama*; Feb 5, 1908	1 00
Way-bill No. 148—Frank Loylan (or Logan), Culebra 1 box fruit, ex *Panama*; Dec 15, 1907	4.84
Way-bill No 165—Jas N. Hinds, Empire, 1 box, ex *Dunottar Castle*; Jan. 15, 1908	1.00
Way-bill No 165—V Washbaugh (or V. W. Ashbaugh, Las Cascadas, 1 box notions, ex *Dunottar Castle*; Jan 15, 1908	3.00
Way-bill No 177—Harry Otis, Gorgona, 1 box merchandise, ex *Panama*; Feb 5, 1908	3.00
Way bill No 177- Fred Roarke, Culebra, 1 box personal effects, ex *Panama*; Feb. 5, 1908	3 00
Way-bill No 177—W J Erginzinger, Empire, 5 cases church goods, ex *Panama*; Feb 5, 1908	8 01
Way-bill No. 177—T. E. L Lipsey, Culebra, 1 box groceries, ex *Panama*; Feb. 5, 1908	1.00
Way-bill No 177—J A. Shaughnessy (or Shaughnsey), Empire, 1 box and 2 barrels glassware, ex *Panama*; Feb. 5, 1908	3 89
Way-bill No. 177—Ed A Edwards, Cristobal, 1 case books, ex *Panama*; Feb. 5, 1908	free
Way-bill No 177—Geo Newbold, Empire, 1 box bedding and 1 case books, ex *Panama*; Feb 5, 1908	3 00
Way-bill No 177—M. A. Gabler (or Sabler), Gatun, 1 crate sewing machine, ex *Panama*; Feb 5, 1908	3 50
Way-bill No 177—F. K. Turner, Empire, 1 box farm implements, ex *Panama*; Feb. 5, 1908	3.00
Way-bill No 177—Miss Macklin Beattie, Corozal, 1 box woodwork, ex *Panama*; Feb. 5, 1908	3 00
Way-bill No. 177—F. W. Nickerson, Ancon, 1 case hammocks, ex *Panama*; Feb. 5 1908	4 15
Way-bill No 150—Geo Alfoe, Empire, 1 box dry goods, ex *Dunottar Castle*; Dec 21, 1907	3.92
Way-bill No. 153—Geo. Alfoe, Empire 1 box hammocks, ex *Finance*; Dec. 26, 1907	2.25
Way-bill No. 168—J. F, Pedro Miguel, 1 box garden drills, ex *Finance*; Jan. 21, 1908	3.00
Way-bill No. 111, S. G. M., Cristobal, 1 box hardware, ex *Advance*; Aug 25, 1907	1 00
Way-bill No. 168—W. Robinson, Cristobal, 1 chest tools, ex *Finance*; Jan. 21, 1908	3.00
Way-bill No. 146—M. C Benson, Bas Obispo, 1 crate machine, ex *Advance*; Dec 9 1907	3.00
Way-bill No. ——H. W. Sawtelle, Colon, 1 package	3.00
Way-bill No 175—A. Kristofferson, Cristobal, 1 tool chest, ex *Advance*; Jan. 2, 1908	3 00
Way-bill No ——J. E. Patterson, Ancon, 1 package	3.00
Way-bill No 177—J. L. Morden, Cristobal 1 launch, ex *Panama*; Feb. 5, 1908	230.00
Way-bill No. 179—C. Hamlin, Corozal, 1 box, ex *Allianca*; Jan 13, 1908	3.00
Way-bill No 179—James Lewis, Matachin, 1 box, ex *Allianca*; Jan. 13, 1908	3.00
Way-bill No 179—J. H. Rice, Culebra, 1 box, 1 crate, and 1 barrel household goods, ex *Allianca*; Jan. 13, 1908	3.89
Way-bill No. 179—J Thompson, Cristobal, 2 boxes, vehicle, ex *Allianca*; Jan. 13, 1908	18 87
No. 7,232—J W. Foulks, Colon, 1 parcel, ex *Dunottar Castle*; Sept 30, 1907	prepaid
No 7,458—F C Wegman, Pedro Miguel, 1 parcel, ex *Panama*; Feb. 5, 1908	prepaid
No. 7,321—J M Chumacero, Colon, 1 parcel, ex *Dunottar Castle*; Nov, 24, 1907	prepaid
No 7,451—W B Haughwont, Cristobal, 1 parcel, ex *Advance*; Jan. 2, 1908	prepaid
No. 7,443—W J. Lynn, M. D, Las Cascadas, 1 parcel, ex *Colon*; Jan. 26, 1908	prepaid
No. 7,378—S. F. Jackson, Camp Elliott, 1 parcel, ex *Dunottar Castle*; Dec 21, 1907	prepaid

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra
Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging.
Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
Capt. George M. Hoffman, U. S. A., Assistant Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk
W. G. Comber, Division Engineer, La Boca
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction
Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S A., Assistant Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal
Caleb M. Saville, Assistant Division Engineer, Gatun
Sydney B Williamson, Division Engineer. Corozal.
E. A. LeMay, Chief Clerk.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics). Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
B. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H Purnell, Health Officer, Panama.
Dr. M E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon

Commissary Department

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, Feb. 26, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Bodenhamer, Nellie Miss
Boothe, Albert (2)
Cabera, F.
Cooper, Gilbert K.
Deammos, Nick
Heydt, Chas. E. (2)
Johnson, Harry P
Kelly, E. R.
Longworthy, Jack
Whitcombe Blanche Miss

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Advance	P. R R	Thursday	Feb.	20
Sarnia	H.-A	Saturday	Feb.	22
Trent	R -M	Saturday	Feb.	22
Panama	P. R.R	Tuesday	Feb.	25
Prinz Aug. Wilhelm	H -A	Saturday	Feb.	29
Allianca	P. R.R	Monday	Mch.	2
Finance	P. R.R	Saturday	Mch.	7
Siberia	H, A	Saturday	Mch.	7
Oroya	R.-M	Saturday	Mch.	7
Colon	P. R.R.	Thursday	Mch.	12
Prinz Joachim	H -A	Saturday	Mch.	14
Advance	P R.R.	Tuesday	Mch.	17
Sarnia	H.-A	Saturday	Mch.	21
Tagus	R -M	Saturday	Mch.	21
Panama	P. R R.	Monday	Mch	23
Allianca	P. R.R.	Saturday	Mch.	28
Prinz Aug Wilhelm	H.-A	Saturday	Mch.	28
Finance	P R.R.	Thursday	April	2
Siberia	H.-A	Saturday	April	4
Magdalena	R.-M	Saturday	April	4
Colon	P. R R.	Tuesday	April	7
Prinz Joachim	H.-A	Saturday	April	11
Advance	P. R.R.	Monday	April	13
Panama	P. R R.	Saturday	April	18
Sarnia	H.-A	Saturday	April	18
Orinoco	R.-M	Saturday	April	18
Allianca	P. R.R.	Thursday	April	23
Prinz Aug. Wilhelm	H.-A	Saturday	April	25
Finance	P. R.R.	Tuesday	April	28

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Oroya	R -M	Wednesday	Feb.	26
Colon	P. R.R.	Friday	Feb.	28
Prinz Joachim	H.-A	Tuesday	Mch.	3
Advance	P R.R.	Wednesday	Mch.	4
Panama	P. R.R	Monday	Mch.	9
Pr. Eitel Friedrich	H.-A	Tuesday	Mch.	10
Tagus	R.-M	Wednesday	Mch.	11
Allianca	P. R R.	Sunday	Mch.	15
Prinz Aug. Wilhelm	H -A	Tuesday	Mch.	17
Finance	P R R.	Friday	Mch.	20
Prinz Sigismund	H.-A	Tuesday	Mch.	24
Colon	P. R.R.	Wednesdap	Mch	25
Magdalena	R.-M	Wednesday	Mch.	25
Advance	P. R.R.	Monday	Mch.	30
Prinz Joachim	H.-A	Tuesday	Mch.	31
Panama	P. R.R.	Sunday	April	5
Pr. Eitel Friedrich	H.-A	Tuesday	April	7
Orinoco	R.-M	Wednesday	April	8
Allianca	P. R.R	Friday	April	10
Prinz Aug Wilhelm	H -A	Tuesday	April	14
Finance	P. R R	Wednesday	April	15
Colon	P R R.	Monday	April	20
Prinz Sigismund	H.-A	Tuesday	April	21
Atrato	R -M	Wednesday	April	22
Advance	P. R.R.	Sunday	April	26
Prinz Joachim	H -A	Tuesday.	April	28
Panama	P. R.R.	Friday	May	1
Pr. Eitel Friedrich	H.-A	Tuesday	May	5

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Trent	R.-M	Tuesday	Mch.	3
Oroya	R -M	Tuesday	Mch.	17
Tagus	R.-M	Tuesday	Mch.	31
Magdalena	R.-M	Tuesday	April	14
Orinoco	R.-M	Tuesday	April	28

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company despatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Texan*, about March 14, and *Asian*, about March 24.

Information is wanted about Joe Barber, a steamfitter by trade, who came to the Isthmus about four months ago. Any information concerning him forwarded to the CANAL RECORD will be transmitted to inquiring friends in the States.

CANAL RECORD

Volume 1. ANCON, CANAL ZONE, WEDNESDAY, MARCH 4, 1908. No. 27.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed by the full name and address of the writer.

NOTES OF PROGRESS

East La Boca Commissary.

The Commissary Department authorizes the statement that it will begin at once the erection of a branch commissary at East La Boca for the use of La Boca and Ancon employes. The new building will be 120 feet by 60 feet, and the site selected for it is at the point where the railway tracks cross the La Boca road. It will carry a full line of commissary supplies, and will have a very large ice box in which cold storage supplies will be kept. The Commissary Department gives assurance that the building will be completed and ready for use within 30 days.

February Excavation Nearly Three Millions.

The grand total of excavation during the month of February was 2,945,880 cubic yards. There were only 24 working days in February. Had there been one more working day, or, in other words, had not Washington's Birthday been a holiday, the three million mark in monthly excavation would have been reached. The highest previous monthly total was that of January, which was 2,712,568 cubic yards, 233,312 less than February, although there were 26 working days in January. Of the total February excavation, 2,741,641 cubic yards were taken from the Canal prism—1,657,483 cubic yards by steam shovels and 1,034,158 cubic yards by dredges.

In the Culebra Division, 1,176,752 cubic yards were removed from the Canal Prism, 26,418 more than in January, and 71,513 cubic yards from accessory works, a total of 1,248,265. The average number of steam shovels at work was about the same in both months.

From the Gatun locks and spillway there were taken by steam shovels 282,797 cubic yards, an increase over the January record of 52,246 cubic yards. At the Miraflores lock site, 39,046 cubic yards were excavated —38,661 from the Canal prism, 385 from accessory work.

The excavation by steam shovels in the Chagres Division was 200,147 cubic yards, and at Mindi 65,632 cubic yards.

The total by dredges at all points from the Canal prism was 1,034,158 cubic yards, of which 401,887 cubic yards were in the Colon Dredging Division, and 682,271 in the La Boca Division. On accessory works outside of the Canal prism, 204,239 cubic yards were removed, 178,404 by steam shovels, 25,835 by dredges.

The detailed excavation for the month is appended:

Department of Excavation and Dredging.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Culebra Division	1,176,752	71,513	1,248,265
Mindi	65,632		65,632
Chagres Division	200,147		200,147
Total	1,442,531	71,513	1,514,044
Dredges—			
Colon Dredging Division	401,887	25,835	427,722
La Boca Dredgi'g Division	682,271		682,271
Total	1,084,158	25,835	1,109,993
Grand total	2,526,689	97,348	2,624,037

Department of Lock and Dam Construction.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Gatun locks	176,291		176,291
Gatun spillway		106,506	106,506
Miraflores locks	38,661	385	39,046
Total	214,952	106,891	321,843

Total Excavation, Entire Canal.

How excavated.	In Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
By steam shov'ls	1,657,483	178,404	1,835,887
By dredges	1,084,158	25,835	1,109,993
Total	2,741,641	204,239	2,945,880

Mean rainfall along Canal (11 stations), 0.43 inches.

Figures of monthly excavation are based upon telephone reports from division engineers and are subject to slight alterations when official reports are received.

A Larger Taboga Boat.

The launch *Petite Louise*, which has been in commission under the Sanitary Department as a passenger boat between Panama and Taboga Sanitarium, is to be taken out of that service, and is to be replaced by a 125-ton French vessel which is to be rebuilt at the La Boca shops. This boat is much larger than the *Petite Louise*, being 83 feet long, 15 feet beam, and having 10 feet depth of hold. It is equipped with one compound inverted direct-acting screw engine, cylinder 12 inch by 24 inch, with 16-inch stroke. The corroded plates of the hull will be replaced, all the machinery will be completely overhauled and readjusted, a new superstructure will be built, and all wood work will be renewed.

The boat was built in England, and made the trip from that country to La Boca in the year 1885 in 108 days, an exceptional performance for a vessel of her tonnage. During the revolution of 1901, the insurgents captured her and converted her into a gunboat. While so employed, she was scuttled and sunk in the Farfan river. She was raised subsequently by the old French Canal Company, and was taken to the beach near La Boca and sunk in order to prevent further confiscation.

New Census of the Zone.

The Acting Chairman of the Commission has approved plans for another census of the Canal Zone. The work will commence on Monday, March 2. In each Administrative district (Ancon, Empire, Gorgona and Cristobal), it will be in charge of the tax collector of the district, and will be confined to the towns, villages and labor camps adjoining the line of the Panama railroad. The results of the census in the rural districts taken last July appear to be reasonably accurate, and the population of these districts will be added to the population of the districts adjacent to the railroad as shown by this census.

Each Administrative district will be subdivided into enumeration districts numbered consecutively, the work in each enumeration district to be completed before enumeration in another district is commenced. By this means it will be possible to determine the population of each town or community soon after the enumeration is completed.

In the enumeration of occupants of bachelor quarters and hotels operated by the Commission, the enumerator will obtain a list of the occupants from the supervisor in charge of the building, and will then secure from each person named the necessary information for the census. In the case of absentees, not only in bachelor quarters and hotels, but in married quarters and private houses, the enumerator will secure information from persons found on the premises. It will probably be necessary to

NOTES OF PROGRESS.

(Continued)

enumerate all labor camps after dinner when a considerable number of laborers are present. The enumerator will secure from the person in charge of each camp, a statement of the number of laborers quartered in the camp, and will then enumerate the men present. Should the number of laborers found in any camp differ materially from the number reported to be quartered there, a recount of the particular camp will be made. In order to prevent duplications, the number of each laborer's metal check will be taken in addition to the information desired of other persons.

The difficulty of securing an accurate census of the Zone is apparent when the composition of its population, the frequency with which persons change their residence, and the number of languages in common use on the Isthmus are considered. Almost all the employes of the Commission, both white and black, live in barracks or bachelor quarters, and must be enumerated there. Frequently a large proportion of them can not be found in their quarters until after nine or ten o'clock at night. This, together with the fact that a large body of laborers may be at work in one district on one day, and in another on the next, makes it difficult not only to enumerate all persons in the Canal Zone, but also to avoid duplications.

The work of the census is in general charge of Mr. Ninas of the Executive Office. The field force assisting the district tax collectors, will be temporarily employed for census purposes, and will be discontinued when the work is completed. It is expected that the enumeration will require three or four weeks.

Dry Dock at Cristobal.

Among the property received from the French Canal Company was a small dry dock, located about a mile up the canal from Cristobal Point. It originally had an available length of 190 feet and a width of 32 feet between gate walls, with about 16 feet of water over the sills at ordinary high tide. About a year ago the work of enlarging this dock was begun, and on February 15 last, it was completed. It will admit vessels not exceeding 298 feet in length, 50 feet wide and 15 feet draft. The new sea-going dredge *Ancon*, and other vessels of this size, can now be readily accommodated.

Gatun Steam Shovel Work.

The maximum daily output of the six steam shovels working at the Gatun lock site for the week ending February 22, (five working days) was made on Wednesday, February 19, when 7,446 cubic yards, car measurement, were excavated, being an average of 1,241 cubic yards per shovel. During the same period, the four shovels at the spillway excavated a total of 23,705 cubic yards, car measurement, the largest daily output being on February 21, when 5,302 cubic yards were removed, an average of 1,326 cubic yards per shovel. Steam shovel No. 252 made the largest output for any one day during the week, loading 2,332 cubic yards on February 21. As Saturday was Washington's birthday and a legal holiday, there were only five working days during the week.

For the week ending February 15, the four shovels at the spillway excavated 18,843 cubic yards, car measurement, an average of 785 cubic yards per shovel per day. The maximum daily output was on February 11, when 3,960 cubic yards. were removed, an average of 990 cubic yards per shovel. Steam shovel No. 252 made the largest output for any one day during the week, loading 1,650 cubic yards on February 14.

A Third French Ladder Dredge.

In 1905, Mr. Maltby, of what was then called the Colon Division of the Department of Construction and Engineering, discovered an old French ladder dredge lying in the Fox river near Cristobal, where it had been since the French régime. He repaired it partially and used it for about a year. Some time ago the Department of Lock and Dam Construction at Cristobal decided to rebuild the dredge. It was found that the engines and other machinery were in good condition, and the only addition necessary was a new boiler. The dredge was placed on the Cristobal dry dock and her hull thoroughly repaired. Her capacity is now estimated at about 125,000 cubic yards per month, and the total cost of rebuilding has been about $25,000. A new vessel of this type would cost approximately $100,000. She carries a double crew of fifty men, and this permits of working two shifts, thus keeping the boat in constant service. She is of the same type as the rebuilt dredges A-2 and 14 at work at La Boca. This addition to the boats at work in the Canal prism is expected to greatly increase the output for the month of March.

Commissary Proposition Declined.

At a meeting of the Isthmian Canal Commission, held at Culebra on February 28, the following letter was read by the Acting Chairman:

Colon, Feb. 8, 1908.

MAJ. D. D GAILLARD, U. S. A.,
Acting Chairman, Isthmian
Canal Commission, Culebra.

Sir: In view of the termination of the recent negotiations, between the Commission and the merchants of Panama, I now have the honor to inquire if the Isthmian Canal Commission would be willing to entertain a proposition for turning over the Commissaries of the Panama Railroad Company to a small syndicate of Panama merchants, providing said syndicate furnished all guarantees or bonds required for continuing present facilities, maintaining ample stocks, and selling supplies of as good a quality as those sold to-day and at prices as cheap, and possibly cheaper, as those charged at the present time. It is also, of course, understood that no supplies of any description would be sold to others than the Isthmian Canal Commission or Panama Railroad employes

The syndicate is both able and willing to carry out any obligation into which it may enter, providing the same concessions as are enjoyed to-day by the Isthmian Canal Commission and the Panama railroad are extended to it, and the coupon system remains in force.

Respectfully,
(Sgd.) M. A. DE LEON.

After careful consideration and discussion of the proposal contained in the letter, the following resolution was adopted:

Resolved, That it is deemed inadvisable and impracticable by the Commission, to intrust the furnishing of commissary supplies for the use of its employes to any private individual, or to any combination of private individuals.

Thanks to the Zone Fire Department.

The following is a translation of a letter addressed to Chief Weidman of the Zone Fire Department, by the Chief of the Colon Fire Department:

PROVINCE OF COLON,
Headquarters, Fire Station No. 1.
Colon, Feb. 25, 1908.

MR. C. E. WEIDMAN,
Chief of Fire Department, Cristobal.

Owing to stress of business yesterday, I was unable to express to you and your brave men the gratitude of myself and my department for the timely and valuable assistance given us in the last fire in the early hours of the 24th instant.

Since I do not know the names of those of your men who were directing the streams of water on the fire, I regret that I am unable to make special mention of them in my official report, but this does not prevent us from recognizing their great merits.

Kindly accept for yourself and your men the consideration and respect of your comrade and friend.

LUIS F. ESTENOZ,
Chief of Fire Department,
No. 1 of Colon.

Dredging at La Boca.

The maximum daily output by the dredges in the La Boca Dredging Division for the week ending February 29, scow measurement, was as follows: February 26, dredge A-2, 7,840 cubic yards; February 25, dredge 14, 7,020 cubic yards; February 26, *Culebra*, 25,384 cubic yards. The total output for each of the three dredges for the same period was: dredge A-2, 38,367 cubic yards; dredge 14, 39,014 cubic yards; *Culebra*, 118,088 cubic yards. The total combined output for the week was 195,469 cubic yards. The total output for each of the three dredges for the month of February was: dredge A-2, 120,895 cubic yards; dredge 14, 123,340 cubic yards, *Culebra* 438,036 cubic yards. The total combined output for the month was 682,271 cubic yards.

The steamship *Haldis* sailed from Kalama, Wash., on February 23, with 1,160,000 feet, B. M., lumber for the Isthmian Canal Commission.

WEATHER CONDITIONS, CANAL ZONE, FEBRUARY, 1908.

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.					Mean relative humidity.	Precipitation.			Wind.			
		Mean.	Maximum.	Date.	Minimum.	Date.		Total.	Days with .01, or more.	Average since station established.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Date.
Cristobal.	29.90	80	84	1	72	15	78	1.08	15	1.39	11,740	n.e.	31	20
B. Obispo.	29.90	77	88	28	64	25	83	.11	4	.38	4,353	n.w.	20	11
Ancon.....	29.88	82	95	1	69	23	77	.24	1	.58	6,830	n.w.	25	22

HEALTH CONDITIONS ON THE ISTHMUS.

Report of the Chief Sanitary Officer for Calendar Year, 1907.

To the Acting Chairman, Isthmian Canal Commission, Culebra, C. Z.

Sir: I herewith forward annual report for the calendar year, 1907.

We averaged during the year 10,709 white employes, among whom we had 179 deaths, giving us an annual death rate of 16.71 per thousand. Last year, 1906, we had a death rate among our white employes, of 16.27 per thousand.

We averaged during 1907, 28,634 negro employes, among whom we had 953 deaths, giving us a rate of 33.28 per thousand. The preceding year the rate in the same class was 49.01 per thousand. This means that among our negro employes 16 fewer men died in 1907, in every thousand, than in 1906.

We averaged during the year 1907, 39,343 employes of all kinds on our rolls. Among these we had 1,132 deaths, giving us a death rate of 28.77 per thousand. The preceding year our death rate in the same class was 41.24 per thousand. This means that in our force taken as a whole, we had 13 fewer deaths in every thousand men than we had in 1906, that is, the improvement in the health conditions in the year 1907, over those of 1906, saved the lives of 507 men in our laboring force.

The improvement has also been considerable in the health of the total population. In 1907, our death rate in this class was 33.63 per thousand; in 1906, 49.10 per thousand, showing a saving of 16 lives per thousand over the year, 1906. This for the total population of 102,000, means the saving of 1,632 lives in 1907 as compared with 1906.

Among our 4,300 white American employes we had during the year 42 deaths, which gives a rate per thousand of 9.76. Of these, 29 died from disease, which would give us a death rate from disease of 6.74 per thousand, which is about as small as would occur among a similar body of men in any healthy part of the United States.

We had in Commission quarters, the families of these 4,300 men—1,337 women and children. Of these, 9 died, giving a death rate of 6.73 per thousand, smaller, I think, than the death rate in the same class in most parts of the United States. Generally, the death rate of women and children, considered together, is much higher than that of men in the prime of life. In this instance, they are almost exactly the same.

Among our 39,000 employes, we had on an average every day, 987 sick. This would give us a rate per thousand of 25, which compares very favorably with bodies of men such as our Army or Navy, or similar organizations.

During the year we had 173 violent deaths among the employes, as compared with 55 in the preceding year. I can think of no particular reason for this very great increase. There was probably very much more blasting and railroad work going on in 1907 than in 1906.

From beri-beri, we had 2 deaths among the employes in 1907 as against 6 in 1906. Among the employes in 1907, we had 48 deaths from dysentery as against 69 in the preceding year. From malaria among the employes, we had 154 deaths in 1907 as against 233 in 1906. This, I think a particularly good showing as the force was considerably smaller in 1906 than in 1907. From pneumonia among the employes we had 328 deaths this year as against 421 last year.

Taking the population at large and considering individual diseases, we also find some gratifying decreases. From malaria, with a total population of 66,000 in 1906, we had 712 deaths; in 1907, with a total population of 102,000 we had 563 deaths. From dysentery, in 1906, we had 190 deaths. With nearly double the population in 1907, we had only 116 deaths. From beri-beri, in 1906, we had 68 deaths; in 1907, 53 deaths. Of those 53 deaths, 48 occurred in the city of Panama; that is, beri-beri is almost confined to the city of Panama. From pneumonia, for the year 1906, we had 720 deaths; in 1907, 581 deaths. From hook worm, which causes tropical anæmia, we had in 1906, 15 deaths; in 1907, 7 deaths. When we first came to Panama we looked upon this as one of the most formidable diseases with which we would have to deal.

It is an interesting fact that of our total mortality, 28.77 per thousand among our laboring force, only 4.57 per thousand died of disease ordinarily called tropical, among which we include malaria.

Taking malaria itself, we admitted into our hospitals during the year 1906, 21,739 cases; in the year 1907, 16,753 cases. As we had a force of 26,000 in 1906, and of 39,000 in 1907, these figures would show that in 1906, eleven-thirteenths of our force had malaria, while in 1907, only five-thirteenths had this disease; that is, the malaria for the year had been reduced just one-half as compared with 1906.

It is interesting to note in this connection that in 1906 our death rate from malaria was, approximately, among the whites, 2 per thousand, and among the blacks, 8 per thousand; in 1907, the same rates were 3 per thousand and 4 per thousand. This seems to show a greatly increased resisting power among the blacks during 1907 as compared with 1906. The slight increase in death rate from malaria among the whites is due to the fact that the white American force has decreased, and the white foreign force greatly increased. The foreign force being much less intelligent than the American white force, increased to some extent the mortality among the whites.

It is worthy of note that we admitted to our hospitals during the year only 243 cases of syphilis, and 190 cases of gonorrhea. This, in so large a force, I think is quite remarkable. And it is equally remarkable that we should have admitted to our hospitals, during the year only 116 cases of alcoholismus.

We gave during the year 438,000 days' treatment to employes in hospitals, at a cost for food of $129,000, which gives us a cost per capita, per day, of 29.5 cents for food. The total running expenses for all hospitals for this same period was $735,000, which would give us a total cost per capita, per day, of $1.677. This compares very favorably, as to expense, with hospitals in the United States, and when we consider that almost all of our supplies are considerably more expensive than in the United States, I think it is doing very well.

During the year we had 71,000 people come to the Isthmus and 44,000 leave, which gives an increase in population of 27,000.

For the year, then, I think we can state that the health conditions on the Isthmus show a marked improvement as compared with all previous years since we have been here, and that this improvement seems to be continuous; that the health of the American whites, men, women and children, is fully as good as in most parts of the United States; that the working efficiency of our force, as far as loss from sickness is concerned, is as good as that of a similar force anywhere in the United States, and better than that of either our Army or Navy.

We have had no case of yellow fever anywhere on the Isthmus, excepting that taken off the shipping at the quarantine stations; no case of bubonic plague, and only one death from smallpox, which was not in the person of an employe.

Very respectfully,

(Sgd.) WM. C. GORGAS,
Chief Sanitary Officer.

Lenten Services at Ancon, Culebra and Empire.

The following services will be held during Lent at Ancon, Culebra and Empire by the Ven. Archdeacon Bryan:

St. Luke's, Ancon hospital grounds—Wednesdays, 8:45 a. m., Matins and Litany; 4 p. m., Evensong. Fridays, 8:45 a. m., Matins and Litany; 8. p. m., Evensong. Sunday services as usual, at 6:30 and 10 a. m.

Trinity church, Culebra—Thursdays, 4 p. m. in the Commission hall. Sunday services as usual.

St. Mary's Empire—Wednesdays, 8 p. m. and Sundays, 7:30 p. m. in Kangaroo Hall.

Improved Order of Red Men.

THE CANAL RECORD:

A ladies Pocahontas Club was formed at Cristobal, C. Z., on Thursday evening, February 13, 1908. They expect to form a Council in about a month when the charter arrives. The following officers have been elected: Mrs. Thomas A. Leathley, president; Miss Ethel Sims, secretary; Mrs. Hattie Fuey, treasurer. Meetings will be held in Lodge hall, Cristobal, every Tuesday evening at 7:30.

ETHEL SIMS,
Recording Secretary.

Cristobal, Feb. 14.

February Rainfall for Three Years.

Station.	1906.	1907.	1908.	Av'ge since station estab'd.	No. of rainy days
Atlantic Slope					
Cristobal	1.14	1.37	1.08	1.39	15
Brazos Brook	....	.91	1.17	1.04	14
Gatun	1.34	2.60	1.29	1.80	18
Bohio	1.94	1.12	1.17	1.64	11
Tabernilla	....	....	.35	....	8
San Pablo	....	....	.09	....	4
Central Sec.					
Bas Obispo	.35	.47	.11	.38	4
Gamboa	.47	.29	.04	.67	1
Empire	.57	.13	.00	.23	0
Camacho	....	*T	.01	*T	1
Culebra	.64	.49	.01	.43	1
Rio Grande	.28	.00	.00	.07	0
Pacific Slope					
Pedro Miguel	....	....	.00	....	0
La Boca	.72	.14	.55	.21	1
Ancon	.33	.04	.24	.58	1
Chagres Val.					
Alhajuela	.18	.06	.18	.15	2

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* Trace

RECORD OF EXCAVATION SINCE AMERICAN OCCUPATION.

MONTHLY TOTALS BY CUBIC YARDS, PLACE MEASUREMENT.

BY STEAM SHOVELS.

CULEBRA DIVISION.

Mos.	1904	1905	1906	1907	1908
Jan.		70,650	120,990	566,750	1,227,022
Feb.		75,200	168,410	639,112	1,248,265
Mar.		132,840	239,178	815,270	
Apr.		126,749	213,177	879,527	
May	27,556	75,935	196,209	690,365	
June	32,551	76,905	212,623	624,586	
July	31,599	78,570	159,789	770,570	
Aug.	35,056	49,210	244,823	786,866	
Sep.	25,220	44,085	291,452	753,468	
Oct	19,695	52,940	327,009	834,499	
Nov	28,860	60,540	221,642	790,632	
Dec.	42,935	70,630	307,689	1,025,485	
Totals	243,472	914,254	2,702,991	9,177,130	2,475,287

Total to Mar. 1. 1908—15,513,134 cubic yards.

GATUN.

Locks, Dams and Spillways.

Mos.	1906*	1907		1908	
	From Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan.		47,539		193,567	98,588
Feb.		70,177		176,291	106,506
Mar.		100,151			
Apr.		103,459			
May		70,528			
June		71,181	3,832		
July		59,537	14,628		
Aug.		78,357	26,866		
Sep.		87,423	36,315		
Oct.	3,055	136,777	40,236		
Nov	11,517	121,635	40,987		
Dec	12,056	160,795	69,756		
Totals	25,628	1,107,559	232,620	369,858	205,094

Total to Mar. 1. 1908—1,941,759 cubic yards.
* No work done outside of Canal Prism.

COLON AND CHAGRES DIVISIONS.

Mos.	Colon. 1907*	Colon. 1908		Chagres. 1907*	Chagres. 1908	
	From Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	From Canal Prism	Outside Canal Prism
Jan.		62,835			169,447	
Feb.		65,632			200,147	
Mar.						
Apr.						
May						
June						
July	731					
Aug.	15,257			2,900		
Sep.	28,837			21,546		
Oct.	41,078			25,627		
Nov	40,003			44,014		
Dec.	46,945			98,652		
Tot.	172,851	128,467		192,769	369,594	

Total to Mar. 1, 1908—301,318 cubic yards.

Total to Mar. 1, 1908—562,363 cubic yards.

* No work done outside of Canal Prism,

PACIFIC DIVISION.

Locks, Dams and Spillways.

Mos.	1908	
	From Canal Prism	Outside Canal Prism
Jan.	7,203	385
Feb	38,661	
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sep.		
Oct.		
Nov		
Dec.		
Totals	45,864	385

Total to Mar. 1, 1908—46,249 cubic yards.

LA BOCA.

Locks, Dams and Spillways.

Mos.	1907	
	From Canal Prism	Outside Canal Prism
Jan		
Feb.		
Mar	538	3,367
Apr		1,753
May		763
June		4,901
July	4,727	9,047
Aug	6,874	8,991
Sep.	5,431	7,374
Oct	7,108	112
Nov.	8,190	1,333
Dec.	6,520	1,195
	39,386	35,847

Total to Jan. 1, 1908—75,233 cubic yards.

Grand total by steam shovels Mar. 1, '08—18,443,056 cu. yds.

BY DREDGES.

COLON.

Mos.	1905*	1906*	1907		1908	
	Outside of Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Can'l Prism
Jan.		90,700		111,100	444,403	46,298
Feb.		105,500		110,002	401,887	25,835
Mar.		126,650		84,145		
April		87,200		69,889		
May	60,700	64,875		133,847		
June		73,500	17,000	107,118		
July	58,050	69,000	104,322	5,600		
Aug.	53,183	54,000	189,170	5,127		
Sep.	48,837	123,540	403,842			
Oct.	48,800	111,020	409,632	5,488		
Nov	38,000	63,260	417,297	5,500		
Dec	92,250	58,400	428,053	14,782		
Totals	399,820	1,027,645	1,969,316	652,598	846,290	72,133

Total to Mar. 1, 1908—4,967,802 cubic yards.
* No work done inside of Canal Prism.

LA BOCA.

Mos.	1905*	1906*	1907		1908	
	Outside of Canal Prism	Outside Canal Prism	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside Can'l Prism
Jan.		95,940		98,710	460,250	
Feb.		95,940		93,480	682,271	
Mar.		116,820		92,319		
Apr		110,700		104,855		
May		112,340		122,157		
June	50,676	62,697	64,352	69,223		
July	41,533	98,400	108,338			
Aug.	54,530	111,930	168,284			
Sep.	114,308	105,780	144,625	9,350		
Oct	81,836	97,170	357,122			
Nov	71,176	92,988	365,423			
Dec	71,094	90,528	349,551			
Totals	485,153	1,191,233	1,557,695	586,014	1,142,521	

Total to Mar. 1, 1908—4,962,696 cubic yards.
* No work done inside of Canal Prism.

GATUN DAM.

Months	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan.				
Feb.				
Mar.				
Apr.				
May				
June				
July				
Aug.				
Sep.		17,000		
Oct.		16,650		
Nov.		4,775		
Dec.				
Totals		38,425		

Total to Mar. 1, 1908—38,425 cubic yards.
Grand total by dredges to Mar. 1, 1908—9,968,923 cubic yards.
Grand total by steam shovels and dredges to Mar. 1, 1908—28,411,979 cubic yards.

FRENCH AND AMERICAN RECORDS.

	FEET
Highest elevation on new center line of Canal before excavation began by the French:	
At Culebra ....312 | At Bas Obispo	233
Greatest depth of excavation by the French:	
On I.C.C. Canal axis: at Culebra, 161; at Bas Obispo	148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-feet level Canal:	
At Culebra—at same point as before	111
At barrier on Contractor's Hill .... about	140
At Bas Obispo	45
Amount excavated under American control:	CUBIC YARDS
In Culebra Division (Canal prism) to Mar. 1, 1908	15,513,134
Total excavation at all points under American control to Mar. 1, 1908	28,411,979

	CUBIC YARDS
Total excavation by the French at all points and including diversion channel .... about	81,548,000
Total estimated excavation required April 1, 1907 for an 85-feet level canal:	
In Canal prism	101,050,000
On lock sites	7,965,000
For regulating work and diversion channel	2,150,000
Dredging in old channel, Cristobal to Gatun, to open construction channel, and at Panama, to keep channel open to La Boca	3,350,000
Total	114,515,000

SOCIAL LIFE OF THE ZONE.

General Activities Throughout the Zone.

The Cristobal Woman's Club has entered upon the last month of work for the year. The annual meeting takes place in April when the club adjourns until October. During the recess, work for the ensuing year will be mapped out and such departmental work as is necessary will be carried on, but the organization will not be called to meeting.

The Art and Literature department entertained the members of the club, by invitation on February 24, when a musical program was given. The chairman of the department, Mrs. E. Lewis Baker, presided. A paper on "The Growth of Music" was read by Mrs. Frederic H. Powell. Miss Frost gave a performance of one of the late E. A. MacDowell's compositions, illustrative of American music; Mrs. Frank Ullrich and her sister, Mrs. Diers, gave examples of Scandinavian music, Mrs P. G. Baker of English, and Mrs. de Sylva of native music. At the close of the program tea was served.

A feature of the business meeting of the club, February 26, was a drill in parliamentary law under the direction of the president. On March 4, the regular literary afternoon, Mrs. Sumner Coolidge of the Culebra Woman's Club will read a paper on "What a Woman's Club has done for a little Massachusetts Town."

Owing to the indisposition of the speaker, the Gorgona club was obliged to defer the program arranged for February 27, when Mrs. Perkins, teacher of the primary class of the local school, was to give an address on school work before the club and the mothers of the community, The address will be given later. The art class in connection with the club will begin its lessons March 4, a very satisfactory number having been enrolled.

The Pedro Miguel club gave a "Birthday" dance February 28, admission being charged. The proceeds will be devoted to the establishment of a library in the club. Mrs. Mark White has been appointed chairman of the Social Committee in the place of Mrs Edna Frazier, whose marriage to Mr. Taylor Curran of Empire took place last week. The club is rapidly growing, new members being added at each meeting.

The Altar Guild of St. Luke's church, Ancon, gave a reception at the Hotel Tivoli February 24. There was a large and representative gathering of the members of the congregation and their friends. The officers of the guild, assisted by Mrs. W. C. Gorgas and Mrs. John L. Phillips, received the guests who were presented by the rector, the Ven. Archdeacon Bryan. A pleasant feature of the evening was the informal music kindly furnished by Mrs. Ruggles, and the ladies of the Reohr Concert Company, Mrs. Reohr, Mrs. Rogers, Mrs. Ohling and Miss Cope, who attended the reception as specially invited guests of the guild. At the close of the evening, short addresses were made by Judge Gudger, Archdeacon Bryan, and the president of the guild. Refreshments were served by the committee in charge of arrangements, with Mrs. Charles Merritt as chairman, assisted by the young ladies of the congregation.

Altar guilds have been organized in Culebra and Empire with Mrs. Newton and Mrs. Zinnas, presidents, respectively. These guilds have the duty of arranging the rooms where services are to be held and assisting toward the establishing of churches in the communities.

The International Sunday School Union is taking steps toward establishing Sunday schools in the different camps along the line where there is no regular church. Rev. J. H. Sobey has this movement in charge.

The Empire Woman's Club had a called meeting February 27 to perfect plans for regular literary work to be taken up by the club. An interesting impromptu program was given to which nearly every member contributed. The recently organized Spanish class held its first meeting March 2.

The Paraiso Woman's Club is engaged in sewing for specific charitable purposes The sewing circle meets at the residence of the president, Mrs. J. C. Barnett. The club will entertain the Pedro Miguel Club at its regular social meeting March 5.

The Nonpareil club of Las Cascadas held its regular meeting February 27, the president, Mrs. W. H. Stanton in the chair. After a short business session, the meeting was given over to the entertainment committee, who introduced as speaker, Miss Rose Johnson who gave an address on "White Slave Traffic." Miss Johnson has had years of experience in Egypt, South Africa and Western Europe as representative of the Travelers' Aid Society, and gave an interesting review of her life and works among these peoples. Tea was served at the close of the address by the committee in charge of refreshments.

The Valentine dance, given by the social and woman's clubs of Las Cascadas, was well attended and greatly enjoyed. Dancing and hearts were the features of the evening. February 26, a party of Masons and their wives gave a surprise party to Mr. and Mrs. O. G. Randall at their home. Refreshments were served and the evening was spent in playing pedro and whist. Mr. and Mrs. Randall left for the States on the *Colon* February 28. Mrs. Randall was the founder and first president of the Las Cascadas Woman's Club.

The Flower dance given by the Ancon Woman's Club February 29 was a complete success. The ball room of the Hotel Tivoli was decorated a l'Empire with pink and white chrysanthemums and garlands of the same colors, all the lights being shaded with pink. Space for the orchestra was reserved in the centre of the room, this being roped off with festoons of pink and white.

The Ancon Art Society held its February meeting February 26 at the residence of Mrs. W. C. Gorgas. The usual program for the evening was carried out—sketching for an hour, and the exhibition of the work, informal music and social entertainment in the drawing room for the invited guests, of whom there were a large number.

The concert given by the Reohr Concert Company, under the auspices of the Ancon Amusement Association, at the Metropole Theatre on Friday evening, February 28, was greatly enjoyed by a large audience.

Lost at Culebra, somewhere between railroad station and post-office, lady's belt with Satsuma buckle. Finder please return to Mrs. J. C. Cooper, house 150 C, Culebra, and receive reward.

PERSONAL.

Lieut.-Col. Goethals and Commissioner and Mrs. Jo C. S. Blackburn returned to the Isthmus on the *Panama* which arrived at Cristobal on Monday last. Mrs. Goethals, who is making a trip through the West Indies, expects to arrive at Cristobal about March 10.

Capt. Charles W. Kutz, U. S. A., Instructor in Military Engineering at West Point, is spending a few weeks on the Isthmus investigating thoroughly all points of interest in connection with Canal work.

Among the passengers who arrived on the *Panama*, March 2, were Judge L. C. Collins of Cristobal, Miss Aileen Gorgas, Miss Elise Walker, of Ancon, and Lieut.-Col. W. G. Macpherson, of the British Royal Army Medical Corps, who comes to the Isthmus to investigate the methods of sanitation in use here.

Surgeon J. C. Perry, Chief Quarantine Officer, returned to the Isthmus, February 29, after an absence of three months.

Major Sibert's second son, Franklin Cummings Sibert, has been admitted to West Point on an examination taken February 24, as a principal appointed at large by the President, February 14, 1908.

Mr. Charles A. Merritt, assistant manager of the Hotel Tivoli, has resigned, to take effect on March 18. He has accepted the position of manager at the Hotel Central in Panama.

Mr. T. H. Rossbottom, Secretary of the Panama Railroad Steamship Company, who with his wife has spent the past ten days on the Isthmus, returned to New York on the *Advance* which sailed from Cristobal March 4.

Culebra Sojourners Club.

THE CANAL RECORD:

Semi-annual election of officers of the Culebra Sojourners Club—The semi-annual election of officers will be held on Friday, March 13, 1908. The officers will appreciate the attendance of all Master Masons residing in Culebra.

GEO. W. STRONG,
Secretary.

Culebra, Feb. 29, 1908.

Kangaroo Dance at Empire.

THE CANAL RECORD:

Owing to the limited space and the large number of Kangaroos on the Isthmus the dances have been limited to Kangaroos and their families and lady friends.

The regular monthly dance of Empire Court No. 1 will be held at Kangaroo Hotel, Empire, Saturday evening, March 7, 1908.

L. P. WORRALL,
Comptroller.

Empire Mar. 2.

Knights of Pythias.

Application has been made to the District Deputy of the Knights of Pythias on the Isthmus for a warrant to incorporate a new lodge at Gatun. This will make the fifth organization of the kind on the Zone. Cristobal lodge was organized about eighteen months ago. Since then lodges have been started at Empire, Culebra and Las Cascadas, and all are in a flourishing condition. The Gatun lodge will start with about thirty members.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Another "Suggestion."

THE CANAL RECORD:

I have read several articles lately in THE CANAL RECORD alluding to men in bachelor quarters. My plan would be where a man is bound to make a nuisance of himself, disturbs his fellow lodgers by his profanity, loud talking, vulgar language, and running around his quarters naked, that the janitor should be notified in writing, signed by the informant (the informants's name to be kept secret and a heavy fine imposed for making the name known). The janitor then to report the same and forward the complaint to the Department of Labor, Quarters and Subsistence, and upon investigation if found true that such nuisances have been committed, the parties be warned for the first offence, and if again reported, they be discharged from the service of the Commission and deported at their own expense. I do not believe that it would be just to make the innocent suffer for the guilty, and the fellow who will persist in annoying his fellow lodgers and trampling on their God given rights should be expelled from the service and the Zone.

I have no use for the army canteen or the saloon. I have seen enough of both. The Sixth Ohio Volunteer Regiment was the only one I know of that abolished the canteen during the Spanish-American War, and it had less men in the guard house than any regiment in the service. The guard house records in Washington, D. C., will bear me out in this statement. I have seen the guard house empty for a month at a time and the average number would be about two or three. We had some prisoners from other regiments in our guard house, and while in Cuba, in the city of Cienfuegos, had several prisoners, but they were not members of our own regiment. Two, I believe, was the number we had there. The only solution for the saloon and canteen is: No saloon. No canteen.

M. T. GRAVES.

Gorgona, C. Z.

Isthmian Sunday School Association Committee.

THE CANAL RECORD:

Mr. A. Lucas, Secretary for Central America, of the International Sunday School Association, spent several days on the Isthmus during the latter part of January. During his stay two meetings were held, at Cristobal and Culebra respectively, attended by well known Sunday school workers. His visit was well timed as the Sunday schools on the Zone are becoming large enough to make desirable some form of federation and contact with other parts of the world.

All the Sunday schools on the Zone, so far as known, were asked to send delegates to a meeting at the Cristobal Union Church on February 2, to organize an Isthmian Sunday School Association Committee, the object being "To federate the Sunday schools on the Isthmus; to form a central point of communication with the International Sunday School Association; to call conventions, conferences and the like, and to further any other joint action that may prove desirable." The committee organized consists of Rev. Wm. Pearn, Cristobal, chairman; Mr. J. M. Weaver, Culebra, vice-chairman; M. K. Higgins, Gatun, secretary; J. C. Foreman, Empire, treasurer; F. W. Leydecker, Las Cascadas; H. Otis, Gorgona; W. A. Graham, Cristobal; Rev. J. C. Elkins. Panama; H. C. Baia, Paraiso; Rev. J. Tobey, Empire; Ralph Wolf, Gorgona, and S. H. Harrison, Pedro Miguel. A second meeting was held on February 7 at Cristobal at which the organization was perfected, by-laws were adopted, and plans laid for the future.

On Friday, the 14th, a conference was held at Culebra to which all known Sunday Schools, on the Zone were invited to send delegates, and nearly all were represented. Informal discussions were held on "Literature for Sunday Schools," "Methods for Increasing Interest and Attendance," "Teacher Training," and "Extension Work in the Communities at present without Religious Observances."

The work of the Committee is well outlined. It will be heard from later. A general Sunday school convention for the Zone is within the possibilities.

H. K. HIGGINS,
Secretary,

Gatun, Feb, 16.

Registering Births in the Zone.

THE CANAL RECORD:

I would like to ask through your columns what the law is, if any, in regard to registering births in the Canal Zone? Recently I went to get my baby registered and there did not seem to be anybody that knew anything about it.

F. F. STEWART.

Cristobal, Feb. 17.

[The law requires that the tax collector "shall keep a civil register for the municipality and record therein all births, marriages and deaths, with their respective dates." The tax collectors of the Zone are stationed at La Boca, Empire, Gorgona and Cristobal.]

Sterilized Water.

THE CANAL RECORD:

May I be informed through THE CANAL RECORD just why the residents at Ancon (the married ones at least), are not supplied with sterilized water by the Department of Labor, Quarters and Subsistence, as at other points on the line?

It may be said that housewives can sterilize the water on their cook-stoves, but it is a considerable nuisance for them to have to do so, and besides, it is not so thoroughly done as at a regularly equipped plant.

When I first came to Ancon, sterilized water was supplied, but for the last two months none has been delivered.

AN EMPLOYE.

Ancon, Feb. 18.

[Beginning March 1, 1908, married quarters in Ancon are supplied with sterilized water.]

Civil Service Examination.

A Civil Service examination for the position of clerk in the service of the Isthmian Canal Commission upon the Isthmus, will be held at Ancon, C. Z., on Sunday, March 15. Application forms and all necessary information may be obtained from John K. Baxter, Secretary, Isthmian Civil Service Board, Ancon, C. Z.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

CRISTOBAL.

Inquiries have been received from the States in regard to Peter Smith, James Bradey, Henry F. McQuillan, M. W. Smith and J. P. Stine. Any information sent to M. J. Stickel, secretary, Y. M. C. A., Cristobal, will be forwarded.

Judge Thomas E. Brown, jr., made an address to the Sunday Club on February 23 on "George Washington."

The bowling match between the Bachelors and Benedicts of the M. and S. office stands 4 to 2 in favor of the single men, with three games yet to be played.

The class in recreative gymnastics holds the keen interest of its members. Many shop men, as well as office men, are feeling the benefit to be derived from properly directed exercise.

The orchestra from the Prinz Joachim gave a concert on Tuesday evening, February 25.

EMPIRE.

The Empire bowling team defeated the Cristobal team at Cristobal, on Wednesday evening, February 26, by the score of 2 to 1. The score by games was: Empire, 772-808-789; Cristobal, 857-747-741.

The bowling team of the Empire baseball club defeated the Empire shops bowling team by a score of 2 to 1 on Thursday evening, February 27.

A sacred concert was given by the Reohr Concert Company on Sunday evening, March 1, when the following program was rendered:

1—Violin solo, *Adagio* - - Wieniawski
RUTH ANDERSON REOHR
2—Soprano, *Just for To-Day* - - Abbott
KATHRYN ROGERS
3—Piano, *Prelude* - - - - Rachmaninoff
LAURA LINTON COPE
4—Contralto, *The Day Is Ended* - Bartlett
FRIDA OHLING
5—*Scripture Lesson and Prayer* - - -
THE REV. J. H. SOBEY
6—Contralto, *O God, Be Merciful* - Bartlett
FRIDA OHLING
7—Violin solo, *Romance* - - Rubinstein
RUTH ANDERSON REOHR
8—Soprano, *Ninety and Nine* - - Campion
KATHRYN ROGERS
9—*Benediction* - - - - - -

Isthmian Baseball League.

Scores, March 1, 1908:

At Ancon Park: Ancon, 3; Empire, 2.
At Empire Park: Kangaroos, 21: Gatun, 1.
At Gorgona Park: M. P. & M., 5; Gorgona, 2.

STANDING OF THE LEAGUE.

March 1, 1908:

	Played.	*Won.*	*Lost.*	*Per cent.*
Ancon	9	7	2	777
M. P. & M	12	9	3	750
Empire	11	8	3	727
Culebra	10	6	4	600
Kangaroos	11	5	6	455
Gatun	9	1	8	111
Gorgona	10	0	10	000

An interesting game of baseball was played Sunday morning, March 1, on the Gorgona grounds, between the Isthmian plumbers, and the clerks of the Division of Building Construction, resulting in a victory for the latter, with a score of 14 to 13. A large and enthusiastic crowd witnessed the game.

Concert.

By the I. C. C. Band at the Hotel Tivoli, Sunday, March 8, 1908, at 3.30 p. m.:

PROGRAM:

1 March..................*Flag of Victory*...Von Blon
2—Waltz..................*My Lady Laughter*... Blake
3—Selection..............*Vaudeville Favorites*..................Mildreth
4 Novellette..............*Apple Blossoms*......Roberts
5 Cornet solo.........*Romanza*.................. Grecio
DIMITRIOS LEORES.
4 (a Intermezzo......*Little Kinkies*..........Bendix
(b March.............*Philadelphus*.........Wiegand
7 Selection..............*Mlle. Modiste*........Herbert
8 Caprice................*The Whistler and His Dog*..............Pryor
9 Overture..............*Schauspiel*.................Bach
10 March.................*With Sword and Lance*.................Starke

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Las Cascadas, March 15.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending March 3:

FRESH MEATS.

		Price. cts
Beef—Sirloin roast	per lb	25
Rump roast	do	25
Porterhouse	do	25
Rib-roast, short-cut, (not under 3½ pounds	do	18
Rib-roast, second cut	do	15
Chuck-roast	do	12
Soup	do	6
Stew	do	10
Corned	do	10, 12 14
Suet	do	6
Steaks—Sirloin	do	25
Porterhouse	do	25
Rump	do	25
Round	do	14
Veal—Cutlets	do	21
Short-cut chops	do	20
Loin	do	13
Entire forequarters	do	9
For stewing	do	9
Mutton—Entire forequarters	do	9
Short-cut chops	do	18
Leg	do	14
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	28
Legs	do	18
Pork—Cuts	do	20

MISCELLANEOUS.

Livers—Beef	per lb...	9
Calf	each...	60
Sausage—Pork	per lb...	16
Bologna	do	15
Frankfurter	do	15
Lieberwurst	do	15
Sweet bread—Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues	per lb...	12
Ox tongues	each...	90

POULTRY AND GAME.

Chickens, dressed (milk-fed)	each...	†1.55
Fowls	do	1.00
Ducks, fatted	do	1.05
Ducks, dressed	do	90
Turkeys	per lb...	25
Squabs	do	35
Eggs, fresh	per doz...	36
Geese (10 lbs.)	each...	2.45

CURED MEATS AND LARD.

Bacon—Strips	per lb...	23
English breakfast, sliced	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45

DAIRY PRODUCTS.

Butter—prints, prime quality	per lb ..	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	30
Gouda	do	30
Edam	each...	90
McLaren's	jar...	10, 15

FRUITS AND VEGETABLES.

Pineapples	each...	20
Oranges	per doz...	10
Grape Fruit	each...	2½
Cranberries	per lb...	10
Lemons	per doz...	15
Apples	per lb...	5½
Apples, fancy table	per lb...	†10
Beets	per lb...	6
Limes	per doz...	12
Parsnips	per lb...	6½
White potatoes	per lb...	2½
Cabbage	do	2½
Onions	per lb...	3½
Sauerkraut	do	3½
Radishes	do	6
Sweet potatoes	do	2½
Yams	do	2½

** Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries.

NOTICE OF PRICE CHANGES.

		Old Price. cts.	New Price. cts.
Ball blue, 1-lb. pkgs,	lb	19	12
Gooseberries, 2s	tin	11	14
Beef and vegetables, 2s	do	22	26
Tongues, ox, 3s	do	1.02	1.05
Apricots, evaporated, 5s	do	1.70	1.40
Soaps, Pears' wash balls, stock No. 34,184	ea	19	20
Soaps, Pears' Glycerine, stock No. 35,576	do	11	15
Soaps, Pears' unscented, stock No. 35,574	do	9	12
Apple butter, Heinz, 3-lb jars	jar	32	40
C. C. beef, 1s	tin	11	13
Shrimps, dry, 1s	do	9	11
Shrimps, dry, 1½s	do	17	19
Wesson salad oil, small	bot	18	12
Ham loaf, 1s	tin	17	19
Chile con carne, 1s	do	14	12
Raisins, Royal scarlet.	lb	18	12
Chocolate, Baker's unsweetened	do	33	45
Peaches, 1-gal	tin	65	73
Parsnips, 2s	do	8	10
Plum pudding, 2s	do	42	37
Pea Beans	lb	3½	4½
Red kidney beans	do	6½	5
Dried green peas	do	5½	5
Shredded codfish, Jewel, ½s	tin		9

NEW ARTICLES

		Price. cts.
Mop sticks, stock No. 39,733	each...	18
Filters, Gate City, No. 8, stock No. 39,726	do	5.95
Filters, Gate City, No. 10, stock No. 39,727	do	8 65
Filters, Gate City, No. 12, stock No. 39,728	do	10 85
Men's white Union duck suits, stock No. 39,732	do	4 50
Heavy white linen Imperials, stock No. 39 736	yard...	55
Men's half hose, black, lisle, stock No. 39,665	do	28
Shoes, men's, glazed, kangaroo, A D B. Blu, Ascot, stock No. 39,675	do	4.40
Shoes, men's, tan, calf. American gents' Blu., Oxf, Ascot, stock No. 39,681	do	3.60
Half hose, men's, assorted colors, stock No. 39,662	per pair	55
Half hose, men's, stock No. 39,424	do	23
Playing cards, stock No 39,555	pack...	18
Waterproof coats, ladies', "Ladies' Mac," stock No. 39,556	each...	4.55
Waterproof coats, ladies', "Ladies' Mac.," stock No. 39,557	do	8.30
Waterproof coats, ladies', "Shamrock," stock No. 39,558	do	22.85
Waterproof coats, ladies', "Echo" stock No. 39,559	do	7.00
Straw hats, men's, stock No. 39,561	do	1 42
Straw hats, men's, stock No. 39,562	do	1.30
Straw hats, men's, stock No. 39,563	do	1 60
Straw hats, men's, stock No. 39,564	do	2 20
Striped crash suiting, 30-inch, stock No. 39,565	yard...	20
Tissue, Lucerne, stock No. 39,569	do	20
Pate de foie gras, Danish	per tin	12
Butter, Danish, 1-lb tins	do	42
Mace, ground	per lb..	55
Hats, straw, stock No. 39,665	each ..	2.85
Corn brooms, four-string, stock No. 39,695	do	25
Corn brooms, five-string, stock No. 39,696	do	30
Stoves, Perfection, one burner, stock No 39 697	do	3 30
Stoves, Perfection, two burners, stock No 39 698	do	4 80
Pepper shakers, glass, stock No. 39,699	do	3
Vichy water	bot...	25
Straw hats, stock No. 39,722	each...	95
Straw hats, stock No 39,723	do	1 40
Half hose, lisle, stock No 39,724.	per pair	24

The steamship *Ada* is expected to arrive at Colon about March 7, with a cargo of 800 000 feet, b. m., of lumber.

PANAMA RAILROAD COMPANY

TIME TABLE No. 1

IN EFFECT MARCH 1st, 1908

SOUTH BOUND			Distance from Colon	MAIN LINE	Distance from Panama	NORTH BOUND			
No. 7 Pass.	No. 5 Pass.	No. 3 Pass		*S Stop* *F Flag Station*		No. 2 Pass.	No. 4 Pass.	No. 6 Pass.	No. 8 Pass.
Daily	Daily	Daily		STATIONS		Daily	Daily	Daily	Daily
Leave	Leave	Leave	Miles		Miles	Arrive	Arrive	Arrive	Arrive
P. M.	A. M.	A. M.				A. M.	P. M.	P. M.	P. M.
4.35	10.30	5.30	00	† COLON	47.58	9.05	1.00	3.50	8.00
s4.37	s 10.33	s5.32	0.42	Cristobal	47.16	s 9.03	s 12.57	s 3.47	s 7.57
s 4.43	f 10.37	s5.38	1.90	Mount Hope	45,68	s 8.58	12.53	3.42	s 7.52
f 4.48	10 43	f 5.44	4.52	Mindi	43 06	f 8.50	f 12.46	f 3.35	f 7.45
s 4.55	s 10.50	s 5.50	7 08	Gatun	40 50	s 8.43	s 12.40	s 3.30	s 7.40
4 56	10 51	5.51	7.20	† Gatun (cabin)	40 38	8 40	12.37	3.26	7.36
f 5.03	f 11.00	5 58	10.68	Lion Hill	36 90	8.33	f 12.30	3.19	f 7.29
f 5.08	f 11.06	6.03	12.75	Ahorca Lagarto	34 83	8.27	f 12.24	3 13	f 7.22
s5.15	s 11.13	s6.10	15.52	† Bohio	32 06	s 8.20	s 12.17	s 3.05	s 7.15
s 5.23	s 11.22	6.18	18.75	† Frijoles	28.83	s 8.10	f 12.08	2.58	s 7.06
s 5.31	s 11.31	s 6.26	21.62	Tabernilla	25 96	s 8.03	P. M. s 11.58	s 2.50	s 6.58
5 32	11.32	6 27	21.86	† Tabernilla (cabin)	25.72	8 02	11.56	2.49	6.57
5.35	11.35	6 30	22.84	Barbacoas	24.74	8.00	11 54	2.47	6.55
s 5.37	s 11.37	s 6.32	23.56	San Pablo	24.02	s 7.58	s 11.52	s 2.46	s 6.53
5.38	11 38	6.33	24.00	† San Pablo (cabin)	23.58	7.57	11 51	2.45	6.52
f 5.40	f 11 40	6 35	24.57	Bailamonos	23 01	7.54	f 11.48	2.43	f 6.50
s 5.45	s 11.45	s 6.40	26.02	† Mamei	21.56	s 7.50	s 11.45	2.40	s 6.47
5.49	11.50	6.45	28.22	† Gorgona (cabin)	19 36	7 42	11.38	2 33	6.38
s 5.53	s 11.53	s 6.49	28 53	† Gorgona	19 05	s 7.41	s 11.37	s 2.32	s 6.37
s 5.58	s 11.58	s 6.54	29.90	† Matachin	17.68	s 7.36	s 11.32	2.27	s 6.32
6 00	P. M. 12 01	6.56	30.70	† Bas Obispo (cabin)	16 88	7 33	11 28	2 24	6.28
s 6.03	s 12.03	s 6.59	31.26	Bas Obispo	16.32	s 7.32	s 11.27	s 2.23	s 6.27
6 05	12 05	7.01	31 98	† Bridge 52 (cabin)	15 60	7 29	11 24	2.20	6 24
s 6.09	s 12.09	s 7.05	32.83	Las Cascadas	14.75	s 7.26	s 11.20	s 2.17	s 6.21
6 11	12 11	7.07	33 49	† White House (cabin)	14.09	7 22	11.17	2 13	6.17
s 6.17	s 12 17	s 7.14	35.18	† Empire	12.40	s 7.17	s 11.13	s 2.10	s 6.14
s 6.22	s 12.22	s 7.19	36.18	Culebra	11.40	s 7.10	11.08	s 2.00	s 6.10
6.23	12 23	7.20	36.27	† Culebra (cabin)	11.31	7.09	11.06	1.59	6 09
6.30	12.30	7 26	39.04	Cucaracha	8 54	7.00	10.57	1.51	5.57
s 6.32	s 12.32	s 7.28	39.78	Paraiso	7 80	s 6.58	f 10.56	1.50	f 5.56
s 6.37	s 12.38	s 7.31	40.72	Pedro Miguel	6.86	s 6.54	s 10.52	s 1.48	s 5.52
6.38	12 39	7.32	41.09	† Pedro Miguel (cabin)	6.49	6.52	10.51	1.46	5.50
s 6.42	s 12.43	s 7.35	42.08	† Miraflores (cabin)	5 50	s 6.50	s 10.48	f 1.44	s 5.48
s 6.50	s 12.50	s 7.40	44.55	† Corozal	3 03	s 6.43	s 10.40	s 1.38	s 5.40
6.55	12 56	7.45	46.75	† La Boca Junct.	0.83	6.38	10.33	1.32	5.33
7.00	1.00	7.50	47.58	† PANAMA	00	6.35	10.30	1.30	5.30
P. M.	P. M.	A. M.		† *Telegraph Stations*		A. M.	A. M.	P. M.	P. M.
Arrive	Arrive	Arrive				Leave	Leave	Leave	Leave

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra
Wm. Howard May, Secretary
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging. Maj. D. D. Gaillard, U. S. A., Culebra
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
Capt. George M. Hoffman, U. S. A., Assistant Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun
Sydney B. Williamson, Division Engineer, Corozal.
E. A. LeMay, Chief Clerk
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon
George R. Shanton, Chief of Police, Ancon
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon
David C. O'Connor, Supt. of Schools, Ancon

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Sliter, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal.
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

The steamship *Eastlands* arrived at Cristobal on March 1 from Gulfport, Miss., with a cargo of piles and cross-ties for the Isthmian Canal Commission.

The following steamers have recently arrived at La Boca: February 23, *Neko*, with 17,000 sacks of coffee and 2,000 bags sugar; *City of Panama*, from San Francisco. February 26, *Denderah*, with 33,000 sacks coffee and 1,500 hides; the British cruiser *Shearwater*. Departures were: February 25, *Baracoutta*, for Central America; February 26, *Shella*, for San Francisco; February 27, *Aysen*, for Valparaiso.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Allianca	P. R. R.	Monday	Mch.	2
Finance	P. R. R.	Saturday	Mch.	7
Siberia	H.-A.	Saturday	Mch.	7
Oroya	R.-M.	Saturday	Mch.	7
Colon	P. R. R.	Thursday	Mch.	12
Prinz Joachim	H.-A.	Saturday	Mch.	14
Advance	P. R. R.	Tuesday	Mch.	17
Sarnia	H.-A.	Saturday	Mch.	21
Tagus	R.-M.	Saturday	Mch.	21
Panama	P. R. R.	Monday	Mch.	23
Allianca	P. R. R.	Saturday	Mch.	28
Prinz Aug. Wilhelm	H.-A.	Saturday	Mch.	28
Finance	P. R. R.	Thursday	April	2
Siberia	H.-A.	Saturday	April	4
Magdalena	R.-M.	Saturday	April	4
Colon	P. R. R.	Tuesday	April	7
Prinz Joachim	H.-A.	Saturday	April	11
Advance	P. R. R.	Monday	April	13
Panama	P. R. R.	Saturday	April	18
Sarnia	H.-A.	Saturday	April	18
Orinoco	R.-M.	Saturday	April	18
Allianca	P. R. R.	Thursday	April	23
Prinz Aug. Wilhelm	H.-A.	Saturday	April	25
Finance	P. R. R.	Tuesday	April	28

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Advance	P. R. R.	Wednesday	Mch.	4
Panama	P. R. R.	Monday	Mch.	9
Pr. Eitel Friedrich	H.-A.	Tuesday	Mch.	10
Tagus	R.-M.	Wednesday	Mch.	11
Allianca	P. R. R.	Sunday	Mch.	15
Prinz Aug. Wilhelm	H.-A.	Tuesday	Mch.	17
Finance	P. R. R.	Friday	Mch.	20
Prinz Sigismund	H.-A.	Tuesday	Mch.	24
Colon	P. R. R.	Wednesdap	Mch.	25
Magdalena	R.-M.	Wednesday	Mch.	25
Advance	P. R. R.	Monday	Mch.	30
Prinz Joachim	H.-A.	Tuesday	Mch.	31
Panama	P. R. R.	Sunday	April	5
Pr. Eitel Friedrich	H.-A.	Tuesday	April	7
Orinoco	R.-M.	Wednesday	April	8
Allianca	P. R. R.	Friday	April	10
Prinz Aug. Wilhelm	H.-A.	Tuesday	April	14
Finance	P. R. R.	Wednesday	April	15
Colon	P. R. R.	Monday	April	20
Prinz Sigismund	H.-A.	Tuesday	April	21
Atrato	R.-M.	Wednesday	April	22
Advance	P. R. R.	Sunday	April	26
Prinz Joachim	H.-A.	Tuesday	April	28
Panama	P. R. R.	Friday	May	1
Pr. Eitel Friedrich	H.-A.	Tuesday	May	5

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Oroya	R.-M.	Tuesday	Mch.	17
Tagus	R.-M.	Tuesday	Mch.	31
Magdalena	R.-M.	Tuesday	April	14
Orinoco	R.-M.	Tuesday	April	28

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company despatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Texan*, about March 14, and *Asian*, about March 24.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, March 4, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Arrott, W. P.
Ausack, Martin
Bond, Wm. C.
Donahue, J. V.
Dorson, Mrs S.
Gittens, Benjamin
Goulette, Mrs (2)
Hamill, M., c.o. L., Q. and S.
Harris, J. A.
Kull, Mr.
MacKay, Paul
Parker, E. F.
Thompson, F. A.
Van Court, N. T.
Van der Vort, Samuel
Vogan, Geo. H.
Walker, Alen
Watson, Richard J
Whyde, John
Wysoff, Roy

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, MARCH 11, 1908. No. 28

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information; will receive attention unless signed by the full name and address of the writer.

NOTES OF PROGRESS

Injuries to Canal Employes.

The bill for the compensation of Canal employes injured in the line of service, which was introduced in the House of Representatives by Mr. Sterling of Illinois, and which was published in full in THE CANAL RECORD of February 26, was introduced in the Senate by Senator Lodge of Massachusetts on February 21, and referred to the Committee on the Judiciary and ordered to be printed.

This brings the same measure before both houses simultaneously and thereby enhances its prospects of enactment.

Improvements in Panama Railroad Yard.

General improvements are under way in the railroad yard at Panama which will add to the comfort of passengers as well as facilitate the handling of freight. A new track 400 feet long has been laid north of the Caledonia bridge and all labor trains and trains for La Boca will start from that point. The present track for passenger trains, alongside the station platform, will be removed and a new cement platform for passengers, 850 feet long, will be built about 15 feet in front of the present station platform with which it will be connected by three approaches. There will be four tracks adjoining the new platform for the exclusive use of passenger trains

The entire yard will be rebuilt, and all new tracks will be laid with 70-pound steel rails. A new turn table will be put in; the engine house will be remodeled and rebuilt, and a water tank of 20,000 gallons capacity will be erected, with which two water cranes will be connected. The freight house will be moved to the edge of Colon street (the new street recently authorized), and will be replaced later by a new and larger freight station. A new yardmaster's office will be rebuilt south of the Caledonia bridge and the other buildings in the yard will be moved to more convenient locations. The entire yard will be fenced and a determined effort will be made to keep the yard clear of loiterers, and all other persons not directly having business there. The entire work is well under way and will be finished in a few months.

Highest February Shovel Records.

The records of the highest steam shovels in each class, in each of the four construction districts of the Culebra Division, with the number of the shovel, for the month of February, 1908, consisting of 24 working days, are as follows:

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
BAS OBISPO DISTRICT.			
110	12,962	12,962	25,924
111	11,476	6,180	17,656
217	15,171	12,413	27,584
251	7,199	28,797	35,996
EMPIRE DISTRICT.			
219		53,048	53,048
226	10,558	24,634	35,192
CULEBRA DISTRICT.			
106	31,854		31,854
122		32,977	32,977
213		39,095	39,095
222		40,482	40,482
PEDRO MIGUEL DISTRICT.			
123	17,602	5,280	22,882
202	26,690		26,690
203	34,801		34,801
OBISPO DIVERSION.			
121	27,818		27,818

Note—Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dipper capacity of 5 cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

February Revenues.

The report of the Collector of Revenues for the month of February, 1908, shows that 13,125 money orders amounting to $418,741.08 were issued. Of this amount, $288,697.68 was in orders drawn on the United States and elsewhere, and $130,043.40 in orders drawn on the Canal Zone.

The largest number of orders, 2,284, was issued at Cristobal and amounted to $64,948.22; the next largest was at Empire with 1,732 aggregating $58,691.74; Gorgona was third with 1,336 orders amounting to $49,146, and Culebra fourth with 1,284 orders aggregating $52,075.40.

Postage sales for the month of February amounted to $6,111.65, and other collections for the month were as follows: Land and building rent, $1,645.10; miscellaneous bills, $1,729.11; internal revenue (tax on distillation), $476.10, and for the administrative districts of Ancon, Cristobal, Empire and Gorgona (licenses, taxes, etc.), $5,721.31. Fines and costs for the districts of Ancon, Cristobal, Empire and Gorgona amounted to $2,732.47.

Culebra Record Again Broken.

The record for excavation in the Culebra Division was again broken on March 4, 1908, when the total amount of material removed was 56,582 cubic yards, with 44 shovels, an average of 1,286 cubic yards per shovel for the 8-hour working day. This material was loaded on 1,744 Lidgerwood flats, 1,192 Western dump cars (small), 411 Western dump cars (large), a total of 3,347 cars, and hauled an average distance of about ten miles. Three hundred and ninety-seven trains were handled by one hundred and thirty-three locomotives, divided as follows:

Serving steam shovels	87
Switching	11
In use with spreaders	8
In use with Lidgerwood unloaders	10
In use with track shifters	3
In use with labor trains	3
In use coaling shovels	2
In use with work trains	9
Total	133

Dredging at La Boca.

The maximum daily output by the dredges in the La Boca Dredging Division for the week ending March 7, scow measurement, was as follows: March 5, dredge A-2, 7,171 cubic yards; March 3, dredge 14, 6,811 cubic yards; March 2, *Culebra*, 24,073 cubic yards. The total output for each of the three dredges for the same period was: dredge A-2, 40,621 cubic yards; dredge 14, 34,490 cubic yards; *Culebra*, 114,240 cubic yards. The total combined output for the week was 189,351 cubic yards.

February Police Report.

The February report of the Chief of Police of the Canal Zone shows a decrease in the number of arrests during the month, 511 having been made in February as compared with 522 in January. The 511 arrests were for 45 different offences, and 52 different nationalities were represented. They were divided among the different towns in the Zone as follows:

Ancon	26	Las Cascadas	11
Las Sabanas	2	Bas Obispo	11
La Boca	42	Gorgona	72
Corozal	3	San Pablo	34
Pedro Miguel	12	Tabernilla	29
Paraiso	23	Bohio	12
Culebra	65	Gatun	24
Empire	61	Cristobal	84
Total			511

San Pablo, formerly an outpost of the Gorgona police station, was made an independent station on February 1. The change was necessary because of the recent increase

NOTES OF PROGRESS.

(*Continued*)

of population in that vicinity. There were 109 prisoners in the district jails on February 29, a decrease of 48 for the month. The coroner held inquest on 13 cases of accidental deaths, four deaths being caused by drowning, and four by railroad accidents.

The number of convicts at the Zone penitentiary on February 29 was 89, an increase of three for the month. The value of work performed on roads, etc., was $1,272.80.

The total effective police force on February 29 was 166, and the pay roll for February amounted to $17,408.78.

Government vs. Private Excavation.

[From Scientific American, February 29.]

The speed with which the rate of excavation of the Panama Canal is increasing is one of the most encouraging features in the progress of that great work. It will be remembered that the grand total of excavation during the month of December, 1907, was 2,200,539 cubic yards. The totals for January show an increase of over half a million cubic yards for the month, or a grand total of 2,712,568 cubic yards. Of this amount, about two and a half million yards were taken from the Canal prism, one and a half million yards of which were removed by steam shovels, and about 1,000,000 by dredges.

In this connection we feel compelled to make reference to a most unfair comparison which was recently made of the rate of excavation on the Canal with that maintained on one of our new western railroads. Without discrediting the work done on the Western Pacific, it must be remembered that the conditions on that road were ideal for rapid work, as distinguished from conditions at the Isthmus, which are about as full of hindrances to rapid work as they can well be. On the western road the climate is healthy and bracing, and the weather exceptionally favorable for excavation. At the Isthmus the climate is extremely enervating and unhealthy, and the weather conditions most unfavorable, because of the extremely heavy rains which occur, for the excavation and transportation of large quantities of material. On the western railroad, the working forces are composed of labor largely native or acclimated to the country; the contractors are within easy reach by rail of the necessary supplies; and most important of all, the excavated material has to be hauled but a short distance to the fill, the material excavated from each cut forming the embankment of the adjoining fill. But at Panama the labor has been gathered from widely separated parts of the world; it is unfamiliar with the climatic conditions; and the excavated material, instead of being taken a few hundred yards to the dump, has to be hauled from two or three up to nine or ten miles before it can be unloaded.

Having these disabilities in mind, the record of work done on the Canal shows that the palm of meritorious performance should actually lie with the Canal, and not with the railroad. For on looking over the statistics, we find that from January to November, 1907, the grand total of excavation was 13,556,733 cubic yards; and that of this amount, 8,151,645 cubic yards of steam shovel excavation was taken out of the Culebra Cut alone, and not as the extract quoted above would imply, from the whole Canal. We find, moreover, that so far from being "chiefly dirt," 58 per cent. of the material was rock. The official figures show that an average of about 5,000 men was employed in 1906-07 in taking out this 8,151,645 yards of material, as compared with the 8,000 men required on the Western Pacific to remove 11,471,300 yards.

Now, the above is a fair sample of the injustice that can be done to a great enterprise in the minds of the lay public, by an unfair and prejudiced handling of statistical figures. So far from the work now being done under our army engineers at the Isthmus being inferior in quantity to that accomplished under civilian engineers on one of our great western railroads, it would seem, if we take all the modifying conditions of climate, labor, and length of haul into consideration, to be greatly superior.

Cement Production.

A Washington dispatch to the New York *Tribune* under date of February 23, gives the following facts about cement production in the United States:

The Portland cement producers of the United States have replied so promptly to the statistical inquiries addressed to them by the United States Geological Survey that it is now possible to make a close estimate of the production for the calendar year 1907.

Returns have been received from eighty-seven plants representing over 95 per cent. of the cement production of the United States. The ten plants which have not yet replied include only two large producers. The returns indicate that the total output in 1907 was 48,000,000 barrels. This should be compared with an output of 46,463,424 barrels in 1906, and of 35,246,812 barrels in 1905.

Though 1907 shows an increase over 1906, it is slight as compared with past annual gains in the cement industry, indicating that it has now reached a stage in its development where it is directly and promptly affected by general business depression. An official statement that the cement required for the Panama Canal would be only 4,500,000 barrels has served to put at rest exaggerated ideas concerning the importance of this work to the cement industry. The further statements that bids would be asked for the delivery of clinker on the Isthmus, and that the Government might possibly erect its own cement plant there, are also of interest to existing American plants.

Gatun Steam Shovel Work.

The maximum daily output of the six steam shovels working at the Gatun lock site for the week ending February 29, was made on Monday, February 24, when 7,242 cubic yards, car measurement, were excavated, an average of 1,207 cubic yards per shovel. During the same period, the four shovels at the spillway excavated a total of 31,969 cubic yards, car measurement, the largest daily output being on Saturday, February 29, when 6,852 cubic yards were removed, an average of 1,713 cubic yards per shovel. Steam shovel No. 119 made the largest output for any one day during the week, loading 2,640 cubic yards on February 27.

OFFICIAL CIRCULARS.

Overtime.

CIRCULAR NO. 159-A:

Circular No. 159, governing the amount of overtime, is to be made effective as of March 1, 1908. The circular applies to both gold and silver employes, and the limit of fifty hours in any one month refers to straight overtime and not to constructive overtime.

GEO. W. GOETHALS,
Chairman and Chief Engineer.
Culebra, March 6, 1908.

Applications for Employment.

HEADS OF DEPARTMENTS AND DIVISIONS:

It is hereby ordered that all applications for employment *above the grade of laborer* shall be forwarded to this office for approval through the Department of Labor, Quarters and Subsistence. Each application must state the employe's nationality and color, and whether employed on a gold or silver basis.

GEO. W. GOETHALS,
Chairman, and Chief Engineer.
Culebra, March 2, 1908.

New Requisitions for Ice.

TO ALL HEADS OF DEPARTMENTS AND DIVISIONS:

The capacity of the ice plant is being drawn on too heavily and a number of instances have been reported of late where ice was being supplied at the expense of the Commission when same was no longer necessary, and to parties who had no right to receive same without charge.

In order that due economy may be exercised in this matter, an order has been given to cancel all outstanding requisitions for ice, paid for by the Commission, on March 15, after deliveries have been made for that day.

It is ordered that Heads of Departments and Divisions shall, on or before March 10, carefully examine into their requirements for ice, cutting down and eliminating their orders wherever practicable, and submit, for approval, new requisitions to take effect, after approval, on and after March 16.

D. D. GAILLARD,
Acting Chairman,
and Chief Engineer.
Culebra Feb. 29, 1908.

Rating of Employes.

TO HEADS OF DEPARTMENTS AND DIVISIONS:

There are still in the service a number of employes carried on the rolls with non-clerical designations, but actually engaged in clerical work. This is contrary to the instructions contained in my circular of November 22, 1907, and in violation of the civil service rules; but as it has been brought to my attention that a number of these employes have rendered long and satisfactory service, and that their discharge would work an undeserved hardship and tend to impair the efficiency of certain branches of the service, an effort will be made to secure an order of the resident authorizing their retention, under designations corresponding with the class of work upon which they are engaged. To secure such an order it will be necessary to submit a complete list of the employes who are to be taken care of.

You are, therefore, directed to prepare and submit, with the least possible delay, a list of the employes under your supervision who are carried on the rolls with non-clerical designations, *i e.*, as foremen, timekeepers, etc., but who are actually engaged in clerical work, showing in each case the present improper designation of the employe, the proposed proper designation, and including a complete statement of the employe's service record.

When the cases of improper assignment which you may report have been disposed of, no reasons will be accepted as sufficient to justify the retention of employes whose designations do not correspond exactly with their work. Your list should, therefore, be compiled with the utmost care.

GEO. W. GOETHALS,
Chairman and Chief Engineer.
Culebra, March 6, 1908.

The steamship *Gretavale* is expected to arrive at Cristobal about March 13, with a cargo of cars for the Isthmian Canal Commission.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Further Suggestions.

THE CANAL RECORD:

I read with amusement the suggestions offered in your valuable paper to remedy the so-called existing evils in the bachelor quarters.

It appears to me that these evils are greatly exaggerated by these very good men, as there are certainly times when a little merriment is indulged in, but this God-given right to amuse ourselves tends in my estimation to help relieve the monotony of life on the Zone, and who will begrudge these little outbursts of gaiety; but a crank who in all probability has never left home until he arrived on the Isthmus? I find the occupants of the bachelor quarters the finest body of well conducted men to be found anywhere. The only suggestion I can make is, that a house be built away in the jungle, where pious people may sit out on the veranda and listen to the musical croak of the frogs.

VINCENT LEAT.

Gorgona, March 6.

THE CANAL RECORD:

Having read the article signed by Mr. M. T. Graves in your issue of March 4, it strikes the writer as rather queer that a "snolger who fit, bled and died for his country" should wish to call in the janitor to help him protect his "God-given rights" to sleep after the "curfew tolls the knell of parting day."

Up in our stable there is intense feeling because one of the "sod busters" persists in running around to the shower bath naked, and then retires to his box stall on the other side of ours and snores all night, ending each snore with a whistling noise. He also wears very heavy shoes, thickly incased in Canal Zone red clay, judging from the sound when they hit the floor on his retiring. Now, if the suggestion of Mr. Graves does not turn out an empty suggestion, and we can feel sure of the secrecy part, and that the heavy fine be levied if the janitor "squeals," we would like to have the rude Canal digger deported, unless he is willing to stop breathing in the early part of the evening while we are in the hay.

Like Mr. Graves, I have no use for the army canteen, or the saloon, and I have seen both, the first at the Presidio, many years ago, and the latter in Colon, and Portland, Me., last summer, so you see I am in a position to know it all. I am afraid that there are too many obstacles at present in the way of having Mr. Graves' valuable suggestions adopted, such as the implied reflection on our police department; the foolish prejudices on the part of Americans to secret attacks and evidence, and the erroneous idea so prevalent, that a man can take care of himself and keep out of clothes-line fights.

JOS. F. KNOWLES,
I. C. C., Mount Hope Stores.

Cristobal, March 5.

THE CANAL RECORD:

Referring to the article signed "M. T. Graves" in your issue of March 4, in which he suggests as a cure for obstreperous lodgers who annoy him, such drastic meassures as "discharge from the Government service and deportation at their own expense," allow me to ask Mr. Graves why he does not go still further and advocate that on their arrival in the States they be imprisoned for life? He seems to hark back to the days of "Star Chamber" methods and "Lettres de Cachet," when no man accused got any show for his white alley, if any of his friends chose to start one of those secret letters he is now in favor of.

I think the simplest thing for Mr. Graves to do, in case the police force in his camp is inadequate, instead of calling in the colored man, is to provide himself with a pair of blinders, a wad of cotton for his ears, and a small bottle of Mrs. Winslow's syrup, which is guaranteed to produce pleasant dreams.

H. R. SHAW,
Commissary Dept.

Cristobal, March 6.

THE CANAL RECORD:

To the occupants of house 98: Boys, did you see Mr. Graves' article in the Canal Record? What do you think of it? I think it is "bosh," "flapdoodle," the product of a narrow mind. Just think—if we open open our mouth in jest, song, or talk a little loud, we are to be reported to the colored janitor, and the informer's name is to be kept secret under penalty of a heavy fine. I wonder what you think of his other charitable plan, to have us discharged and deported. He says he does not believe the innocent should be made to suffer for the guilty. We have that much to be thankful for. He mentions our "God-given rights;" what does he mean by that? I am am sure we all are thankful to our heavenly Father for giving us good health and a fair amount of gray matter, so that we can perform in the shops, or other places as the case may be. Isn't that a little more than he can say? The 6th Ohio Volunteers deserve a place in history; no doubt they will get it if the record has not been destroyed. It ought to be framed and hung in the Hall of Fame. I have known soldiers that were sent to the guard house for being a little hilarious and other trivial offences that would risk their life, without a second thought, for their country and fellow man.

W. WHITE.

Gorgona, March 8.

Paraiso Sojourners Club.

THE CANAL RECORD:

The Paraiso Sojourners Club will give a smoker Saturday evening, March 21, 1908, in the new lodge room at Paraiso. All Masonic clubs and all Master Masons are cordially invited to be present.

H. C. RAGSDALE,
Secretary.

Paraiso, March 9.

Sojourners Lodge.

THE CANAL RECORD:

Sojourners Lodge No. 874, A. F. and A. M., will meet at its hall in Colon on Saturday, March 14, at 7:30 p.m., in Ordinary Communication. Masons in good standing are fraternally invited to be present.

JOHN LAGERQUIST,
Secretary.

Colon, March 7.

PERSONAL.

With the approval of the Secretary of War, Lieut.-Col. H. F. Hodges, Corps of Engineers, General Purchasing Officer, in addition to his present duties, is placed in charge of the design of the lock gates, and of the force connected therewith.

Lieut. Stanley S. Ross, U. S. A., who has been lieutenant of the Canal Zone Police for the past two and one half years has resigned that position, having received orders from the War Department to join his company of the Coast Artillery at Fort Williams, Me. Lieut. Ross sailed for the States on the *Advance*, from Cristobal on March 4.

Assistant Surgeon F. M. Shook, U. S. N., of Colon Hospital, and Dr. N. D. Brayton of Ancon Hospital sailed on the *Advance* March 4 for a six weeks' visit to the States.

The Right Reverend Edward William Osborne, S. T. D., Bishop of Springfield, (Ill.), who has been on a visit to Trinidad, spent from March 9 to March 11 on the Isthmus, en route to the States. During his visit he administered the rite of confirmation at Culebra, and ordained a deacon at Colon.

Mr. F. B. Maltby, who was formerly Division Engineer of the Colon Division of the Isthmian Canal, spent the past week on the Isthmus. Mr. Maltby is now Chief Engineer for Dodge & Day, General Engineers and Contractors, Philadelphia. His visit to the Isthmus was in connection with the bids for the cableways for the handling plant at the Gatun Locks.

EXECUTIVE ORDER.

Speed of Automobiles.

By direction of the President, the following ordinance, adopted at the 140th Meeting of the Isthmian Canal Commission, January 30, 1908, is hereby approved:

That any person driving an automobile in the Canal Zone at a speed exceeding fifteen miles an hour on straight roads, or at a speed exceeding eight miles an hour when approaching curves, forks or cross,roads, shall be punished by a fine of not less than five dollars ($5) nor more than one hundred dollars ($100) United States currency, or by imprisonment for not more than thirty (30) days, or by both fine and imprisonment at the discretion of the court. The owner of an automobile, if in the car, shall be held responsible for its speed; in the absence of the owner, the person actually driving the automobile shall be held responsible.

WM. H. TAFT,
Secretary of War.

WAR DEPARTMENT.
Washington, D. C.,
February 27, 1908.

Culebra Sojourners Club.

THE CANAL RECORD:

Semi-annual election of officers of the Culebra Sojourners Club—The semi-annual election of officers will be held on Friday, March 13, 1908. The officers will appreciate the attendance of all Master Masons residing in Culebra.

GEO. W. STRONG,
Secretary.

Culebra, Feb. 29, 1908.

The steamship *Phyllis* sailed from New York February 28 with a cargo of 15,000 barrels of cement for the Isthmian Canal Commission.

SOCIAL LIFE OF THE ZONE.

Movement in the Women's Clubs to make a Study of National Songs.

The Ancon Woman's Club held its regular business meeting March 4 at the Tivoli Hotel. To the great regret of the members, the resignation of the president, Mrs. W. C. Gorgas was received. Mrs. Gorgas expressed her own regret at the step she felt obliged to take, as owing to her numerous outside duties and engagements she was unable to give time and thought to the work of the club, and added that she would remain an active member of the organization and would work with and for its interests as long as she remained in Ancon. Mrs. J. M. Maguire was elected by unanimous vote to fill the office, and Mrs. J. St. Clair Hunt of La Boca, was elected first vice-president to succeed Mrs. Maguire, pending her acceptance of the office. Mrs. W. B. Ruggles was appointed chairman of the Educational Department. Steps were taken toward forming a physical culture and dancing class for children. Yellow and white were adopted as the club colors; the art section adopting, by suggestion of its chairman, the addition of black to the regular colors. A movement among club women to study the National songs was responded to with enthusiasm, and the meeting closed with the singing of "America." This suggestion has also been taken up by the other clubs along the line and it is probable that the movement will become general. The committee in charge of the flower dance which was given February 29, has issued a request that all returns should be brought to the next meeting of the club, March 18. The program for that day is in the hands of the Literature Department.

The Paraiso Woman's Club entertained the members of the Pedro Miguel Woman's club at a social meeting, March 5. The club room was decorated with giant palms and lanterns. Tea was served at small tables which were placed about the room. A program was given which included piano solos, recitations, a clog dance, black face sketch, songs and duets, a quartette, and a number of songs by school children. A feature of the afternoon was a guessing contest in which prizes were won by Mrs. Strong and Mrs. Kohler of the visiting club. The committees in charge of the function were Mrs. E. B. Healey, program; Mrs. Kerslake, decorating; and Mrs. Barnes, refreshments. The club has a good library in circulation, and the members take active interest in the literary and musical departments. The club has taken up the work of making childrens' night gowns for children under 14 years of age, which will be donated to the Ancon Hospital. The meeting March 12 will be for the regular election of officers.

The Bowling Club of Culebra gave a farewell reception to Mrs. A. W. Stevenson at the Commission Club House, February 27. Ten members were present, and the afternoon was spent in social amusement. The arrangements for the occasion were under the direction of Mrs. E. M. Pullen, vice-president of the Culebra Woman's Club.

The regular meeting of the Empire Woman's Club was held March 5, with the president in the chair. An amendment to the constitution was adopted by unanimous vote, by which the time of meeting was changed from every alternate Thursday to every fortnight; business and literary meetings will alternate regularly.

A meeting of the Board of Managers of the Cristobal Woman's Club is called for March 11. The regular meeting March 12 is in charge of the philanthropy department. Miss Rose Johnson will be the speaker. The art and literature department has charge of the literary meeting, March 18. A little play called "A Shakespearian Burlesque" will be given with Mrs. Claude C. Pierce as Juliet; Mrs. Frederick H Powell, Portia; Mrs. J. J. Jackson, Lady Macbeth and Mrs. E. Lewis Baker, Ophelia The work for the season 1908-9 is being planned in the various departments.

The Las Cascadas Woman's Club held its regular business meeting March 5, with the president, Mrs. W. D Stanton in the chair. Committees to serve for the month were appointed as follows: Visiting, Mrs. Decker, Mrs. van Hardenveldt, and Mrs. Maring; entertainment, Mrs. Drysdale, Mrs. Merry, Mrs. Thompson, and Mrs. Williamson. The Spanish class is now meeting regularly at two o'clock. New members have been added to the list.

The Culebra Woman's Club met in regular session March 5, with the president, Mrs. Samuel Merry in the chair. The club is arranging to give a euchre party at the residence of Mrs. George D. Brooke. Mrs. Margaret Pullen is chairman of the committee. Mrs. W. M. McCoy has been appointed chairman of the refreshment committee, and Mrs. Sumner Coolidge of the entertainment committee, both to serve three months. The hour of meeting has been changed from 2:30 to 3 o'clock.

The services at St. Luke's church, Ancon, on Sunday March 8, took the form of a memorial to the late Right Reverend H. Y. Satterlee D. D., Bishop of Washington, who died in that city February 24. Bishop Satterlee was the ecclesiastical head of the Protestant Episcopal church in the Canal Zone, he having been chairman of the conference of Bishops that decided to send representatives of that church to establish missions in the Zone, and on the Isthmus of Panama. Archdeacon Bryan preached a memorial sermon.

The young people of Corozal gave an informal dance on Saturday evening, March 7, in the office building which has just been completed for the Pacific Division, Lock and Dam Construction. The affair was so successful that an effort will be made to have them at regular intervals in the future.

Texas Club.

The Canal Record:

The Texas Club of Gorgona will hold a meeting at the home of W. T. Morrison, house 86, on March 20, to which all Texans are invited. Matters of importance will be discussed and a program rendered.

Mrs S. E. Calvit,
Secretary, Pro Tem.

Gorgona, March 8.

Civil Service Examination.

A Civil Service examination for the position of clerk in the service of the Isthmian Canal Commission upon the Isthmus, will be held at Ancon, C. Z., on Sunday, March 15. Application forms and all necessary information may be obtained from John K. Baxter, Secretary, Isthmian Civil Service Board, Ancon, C. Z.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

The concert company, consisting of Ruth Anderson Reohr, violinist; Kathryn Rogers, soprano; Frida Ohling, contralto, and Laura Linton Cope, pianist, returned to New York on the steamship *Advance* on March 4, having given seven entertainments in the Canal Zone, which were very popular. Experience has shown that the Isthmian public prefers high-grade lyceum entertainments to vaudeville.

Mrs. Frances Carter arrived on the steamship *Allianca* Monday, March 9, and will give reading recitals before the Y. M. C. As. in the Commission club houses, as follows: Tuesday, March 10, Culebra; Wednesday, March 11, Empire; Thursday, March 12, Cristobal; Friday, March 13, Gorgona. Mrs. Carter will be assisted by Miss Zue McClary, who furnishes much of the entertainment talent, appearing before clubs in New York City, and through whom the Y. M. C. A. has secured a large number of the entertainers who have visited the Isthmus.

Y. M. C. A. Basket-Ball League.

Standing of the teams on March 6, 1908:

Team	*Played*	*Won*	*Lost*	*Percent*
Empire	7	6	1	857
Cristobal	7	5	2	714
Culebra	7	2	5	286
Gorgona	6	1	5	166

Y. M. C. A. Second-Team Bowling League

Standing of the teams on March 6, 1908:

Team	*Played*	*Won*	*Lost*	*Percent*
Empire	12	11	1	917
Cristobal	9	4	5	444
Culebra	12	4	8	333
Gorgona	9	2	7	222

CULEBRA.

In the chess tournament for Class B men, which closed recently, the standing of the players was as follows:

	Won	*Lost*
A. Onderdonk	9	2
C. Wilson	8	3
H. J. Wempe	7½	3½
G. S. Johnson	7	4
Paul Rose	6½	4½
S. E. Spier	6	5
S. G. Forbes	5	6
C. R. Harrington	5	6
I. E. Davis	4½	6½
Edw. Vogel	4½	6½
Geo. W. Strong	4	7
N. T. Coffey	1	10

As a result of the billiard tournament during February, the following four men will play off for the championship. Their standing at the close of the tournament was as follows:

	Won	*Lost*
J. H. Perrault	14	1
H. J. Floyd	13	2
F. W. Doty	12	3
Wm. Dubois	11	4

The other men in the tournament were: Clark, Vogel, Tragsdorf, Baumer, Strong, Oliver, Johnson, Spier, Sholtes, Walsh, McCorm and Baxley.

The boys' baseball team won their third game from the Empire boys on Saturday, February 29, by the score of 4 to 3. Games are being arranged with the boys of Ancon, Gorgona and Cristobal.

EMPIRE.

On Wednesday evening, March 4, the Empire Second Bowling Team won three straight games from the Culebra Second Team by the following score: Empire, 859-837-775; Culebra, 790-736-750.

On Saturday evening, March 7, the members and friends of the Empire Y. M. C. A. enjoyed an exhibition of moving pictures in the club house auditorium, which was presented by Messrs. Hatter and Stephens.

On March 14, Gorgona will play basket-ball at Empire.

CRISTOBAL.

The Commissary team defeated the second team of the Y. M. C. A. in an exciting game of basket-ball on Saturday evening, March 7, by the score of 8 to 3.

The local bowling tournament, which was recently completed, resulted in a tie between teams A and G. In the play-off, team A won. The members of the winning team were Gilmore, Murray, Robertson, Krepleever and Strong (captain).

HEALTH REPORT FOR FEBRUARY.

Most Favorable Showing Since American Occupation.

To the Chairman, Isthmian Canal Commission, Culebra, C. Z.

Sir: I herewith forward report of the Sanitary Department for the month of February, 1908.

You will see the rates as compared with the previous month show a favorable decrease. This is, in general, the case at this time of the year. February, generally, shows a slight improvement over January.

As was the case in January, if we compare February, 1908, with February, 1907, the improvement is very marked. In February, 1907, we had 8,504 whites with 10 deaths, giving us a yearly rate of 14.11 per thousand. In February, 1908, we had 11,789 whites with 7 deaths, giving us a yearly rate of 7.12 per thousand, an improvement of nearly one-half in our death rate for whites.

In 1907, we had 27,800 blacks with 83 deaths, giving us a yearly rate of 35 83 per thousand. In 1908, we had 32,250, with 40 deaths, giving us a yearly rate of 14.88 per thousand, a rate of 20 less per thousand.

Taking the total force, whites and blacks together, in 1907 we had 36,304 on our rolls with 93 deaths, giving us a yearly rate of 30.74 per thousand. In 1908, we had on our rolls 44,039 men with 47 deaths, giving us a yearly rate of 12.80 per thousand, a decrease of 20 per thousand in the rate of the whole force.

Taking the total population, in 1907, we had a population of 92,494, with 278 deaths, giving us a yearly rate of 36.07 per thousand. In 1908, we had a population of 113,269, giving us 202 deaths, with a yearly rate of 21.40 per thousand, an improvement of 15 per thousand in the rate of the whole population.

21.40 is the lowest rate we have ever shown for our whole population, and is about the rate of New York City; somewhat better, in general, than that of Washington, Baltimore or New Orleans.

Taking up individual diseases the showing is equally good. We had only one death among employes from dysentery, two from malaria, and not a single one from typhoid fever.

Among the 8,000 white Americans in commission quarters, which include 2,000 women and children, we had no deaths from disease of any kind.

The sick rate also makes an excellent showing—17.86 per thousand. The rate for the same month in the year 1907 was 24.73 per thousand; 17.86 is the smallest sick rate that we have ever had.

No cases of yellow fever, bubonic plague, or smallpox occurred during the month.

Taking the report as a whole, this is the most favorable report that the Health Department has been able to make since we have been on the Isthmus.

Very respectfully,
(Sgd.) WM. C. GORGAS,
Chief Sanitary Officer.

GENERAL SANITATION—CITY OF PANAMA.

In addition to the ordinary routine work, a crusade against rats was inaugurated in the latter part of the month. The force engaged in this work consists of a foreman and four men, whose duty it is to distribute traps and poison, and to bait traps and to gather up rats dead and alive, and have them cremated. While the report shows only 197 rats cremated, this does not indicate the number destroyed, for many of the little pests die in inaccessible places, and their demise is only indicated by the odor of decomposition.

The good sanitary condition generally is a source of congratulation, and the health of the city is remarkably good as indicated by the mortality for the month. Referring to the "Cause of Deaths" table, it will be noted that only 80 persons died, 26 of whom were inmates of Santo Tomas Hospital. The greatest number of deaths from any disease resulted from tuberculosis, there being 11 deaths from this cause. No acute contagious disease has occurred, and no one disease has prevailed noticeably.

The continued prosperous condition of the city is indicated by the demand for building permits, 13 of which were issued during the month.

COLON, CRISTOBAL AND MOUNT HOPE.

The total number of deaths for this station shows a decrease over previous months. The general health conditions for the month were slightly better. The only new disease observed was one case of whooping cough which developed shortly after the arrival of the patient from the States. This case was isolated in quarters, and no new cases have developed to date. The number of white employes reported to this office remains about the same as for last month, but the number of cases reported by medical inspectors in Colon is considerably less. The total number of typhoid cases reported from Colon Hospital was considerably higher than for the previous month, but these can not all be charged to this station, as all cases of typhoid in the hospital, regardless of where they come from, are reported to this office. Of the 11 cases reported this month, three came from Cristobal, one patient lived at Camp Biord, four cases came from Colon; of these last four cases, one arrived on the Isthmus with typhoid fever already developed, having come here from a town in Jamaica where typhoid was epidemic, and the patient in this case sought medical assistance as soon as he landed on the Isthmus. The remaining three cases were taken from different points in Colon and have no connection with each other.

Of the five cases of amoebic dysentery reported, one was in a laboratory worker at the hospital, one from Gatun, two from Cristobal, and one from Colon.

Very little progress was made during the month in connecting houses with the sewer and water mains, there having been only nine connections made. The difficulty between the master and journeymen plumbers however, has been satisfactorily adjusted, and there is every reason to believe that a better showing will be made during the coming month. The total number of connections shown in the report represent an accurate number as shown by the official list.

The barrels spigoted and covered during the month are those located at the village of Guava Ridge, which has recently sprung into prominence and is being sought for by the class of people engaged in making charcoal.

The drains shown under Mount Hope section as having been cleaned and made are those in swamp No. 2 and in the village itself.

The number of houses upon which the screening was repaired is slightly less than last month on account of having no wire cloth to work with. In one or two instances houses were occupied without having any screening on them whatever. We raised no objection when this move was made as it did not seem that the occupants would be running any risk of contracting malarial fever as there has been very little rain and very few mosquitoes.

At the cold storage and commissary, the money value of food stuffs condemned was considerably less than last month.

SANITATION—CANAL ZONE.

Aside from the usual routine work, there has been extra work going on at Gatun, San Pablo, Bas Obispo, Las Cascadas, Empire, Corozal, Ancon and La Boca.

At Gatun, the channel of the stream to the north of the American quarters has been straightened out to give a better grade, and all the ditches at the rear of that settlement are being tiled. The swampy area near the laborers' married quarters has been filled in and the seepage water from the adjacent hillsides has been drawn off by tiling. Anopheles are hard to find in that district at the present time, and the malarial sick rate has been low.

At San Pablo, ponds are being filled in and a large amount of necessary clearing of brush has been done.

In the Bas Obispo district, the area surrounding the Santa Cruz laborers' camp is being made ready for the horse mower. The camps in this district are within anopheles flight distance of the Chagres and Bas Obispo rivers. These rivers are very low at the present time and furnish excellent anopheles breeding places. Throughout the month it has been necessary to fill up small pools along the edges of these rivers, and it has also been necessary to remove at regular intervals all algæ that accumulated along the edges so that the small fish could have access to the eggs and larvæ of anopheles.

In the Las Cascadas district, the tile drainage in the area surrounding the American settlement has been continued and will soon be completed The malarial sick rate there has decreased. The brush near the native settlement has been removed.

At Empire, the area at the rear of the American camp, known as the Savanuas, has been cleared off ready for a horse mower. The drains in this area are to be tiled during March or April.

At Corozal the swamp to north of the mess hall has been completely drained, and the area at the rear of the married quarters is being sub drained to cut off the seepage from the adjacent hills.

At Ancon, the main drain at Santa Rosa has been stone-lined, and the low land near the colored laborers' camp is being filled in.

In the La Boca district, the land to the south of the American settlement is being cleared by contract, and the swampy land in front of the American mess hall is being filled.

Arrangements have been made to begin the necessary sanitary and anti-anopheles work at Porto Bello on March 2, and sanitary supplies are already on the ground.

No anti-malaria work has been done there previously, and the progress to be made will show the effectiveness and value of systematic anopheles destruction work. Also, a new camp has been started near the Cocoli river, about six miles from Panama, and the necessary sanitary work is being accomplished there at the present time.

As the camps and native settlements are increasing in size and number, the amount of garbage to be removed, is increasing. At the present time garbage is being cremated in six districts, and it is proposed to cremate garbage at other points at an early date.

In order to determine whether the removal of brush and cutting of grass on rough land can be done more economically by contract, a contract for work of this character has been awarded for clearing in the La Boca district, and two more contracts are being considered.

During the month there has been a decrease in the number of necessary prosecutions for the violations of sanitary ordinances as compared with past months. Good progress has been made in the installation of sewers at the native towns at Empire and Gorgona, House connections are now being made.

MOSQUITO WORK AND MALARIA.

During the month quite a quantity of Phinotas oil has been used, and comparisons have been made between the effects of the same, and those of crude petroleum. So far the Phinotas oil has given satisfactory results, and the determination of the best and most economical method of its application to moving water, is being studied. There are many conditions under which the application of crude petroleum, or even an oil equivalent to kerosene, is not as satisfactory as is desired for mosquito destruction.

Minor repairs in screening have been made on a large number of houses. At the present time, about one thousand houses occupied by whites are screened and also, about five hundred buildings occupied by laborers. In the native towns and settlements practically none of the houses are screened. These latter houses belong to private owners.

The construction trains of the Panama railroad are furnishing quite a number of malarial cases. These laborers live in box cars which are often located near swamps, or in places where no anti-malarial work has been done. At times large numbers of anopheles are found in the cars in which the laborers sleep. Some of these cars have been screened, but it is very difficult to keep the screening intact and to prevent the laborers from propping the screened doors open, especially where cars are located at a distance from the settlements. These construction trains are often moved about from one place to another, and transport infected anopheles to the different camps, as well as furnishing malarial infection to uninfected anopheles in the district to which they are moved.

During January and February, many barracks at the various camps have been examined for adult anopheles and stegomyia. They have been found to be absent at many buildings and at times none were found indoors, although all barracks in the camp were carefully examined. Adult stegomyia were remarkably hard to find indoors. The mosquito work has not resulted in such a marked decrease in culex as in the case of anopheles and stegomyia. So far as the number of adult mosquitoes to be found in the day time in or about our camps is concerned at the present time, culex come first, and then anopheles, and lastly stegomyia. The culex in the Zone seems to travel for long distances from their place of birth just as they do in northern latitudes.

Every effort is being made to keep stegomyia breeding down to a practical minimum quantity in the Zone. There is yet quite a lot of stegomyia work to be accomplished in the scattered native settlements, which are increasing in size and number. In such settlements it is but natural that adult stegomyia should be more numerous than either culex or anopheles, or both combined. The stegomyia breed almost exclusively in water containers, and as natives have a tendency to throw tin cans, bottles, etc., into the high grass surrounding their houses, they assist very largely in increasing the number of stegomyia to be found in their own dwellings.

Where native houses or villages occur near Isthmian Canal Commission camps, we keep the grass cut short and hold the house tenants responsible for allowing water containers to exist near their residences. Also, regulations now in force prevent as far as possible the construction of native houses near employes' quarters, and this decreases to a large extent the number of breeding places, and hence, the number of adult stegomyia near our camps. It is easy to see that if there are no stegomyia near our camps, that under such circumstances a person with a light case of yellow fever just contracted could even come to that camp and remain there, and no secondary case of yellow fever could occur under such circumstances, because of the existence of the walking case of yellow fever present. Each week an inspection to locate stegomyia breeding places is made in each district, and in very many instances deposits of water are found where stegomyia eggs and larvæ are not present, indicating absence of adults. It is now two years and five months since the last case of yellow fever occurred in the Canal Zone.

At Porto Bello, anopheles larvæ were found in rain water held by leaves of growing parasite plants, and were also found in sub-surface waters in crab holes near the beach. Adult anopheles were developed from the larvæ. It has not yet been determined whether such sources will produce a sufficient number of adult anopheles to be of importance, but the matter will be investigated. In the Canal Zone such occurrences up to the present time have been exceptional.

Since January there has been trouble with anopheles breeding in the water in the Canal cut between Miraflores and Matachin for a distance of twelve miles, and also along the Chagres, Bas Obispo, Rio Grande and Caraballo rivers, and in order to control the malarial situation at our camps, it will be necessary to inspect, continuously and regularly, these bodies of water and destroy the young anopheles before any may develop.

The average malarial sick rate (hospital cases) during February among all employes living at camps between La Boca and Gatun, inclusive, has been lower than during the previous month. At Bas Obispo, Miraflores, San Pablo, Cucaracha, and Cartagenita, there has been a higher malarial sick rate than at other points in the Zone. Most of the men taken sick with malarial fever at these stations are at work near anopheles breeding places, and in the case of Cartagenita and Bas Obispo, much of the malarial infection is directly traceable to the construction trains, in which Panama railroad laborers sleep. The string of cars moved to Bas Obispo about February 5. For the four previous weeks, the malarial rate had been 38 per cent., 14 per cent., 50 per cent., and 22 per cent., respectively. For the four weeks following the advent of the cars it rose to 66 per cent., 49 per cent., 80 per cent. and 141 per cent. So many anopheles were found in the sleeping cars that it has been necessary to fumigate them on two occasions since they arrived.

There has been a marked reduction in hospital malarial cases at Paraiso as compared with January. The same is true for the Pedro Miguel camps. The malarial sick rate at Gatun, Tabernilla, Gorgona and Matachin is remarkably low as compared with the corresponding period of 1907, and at Las Cascadas, considering the local conditions favorable to malarial propagation, the result of the anti-malarial work is very satisfactory. There is considerable latent malaria among the employes, and of the present relatively small number of hospital fever cases, quite a few do not represent new infections.

QUARANTINE SERVICE.

A physician was sent to Corinto under date of February 1, as a representative of the Quarantine service to act as an inspector of that port, keeping us informed of its sanitary condition, and especially of the sanitary condition of the wharf at Corinto, with the expectation that the authorities at Corinto, with the assistance of the Central American Commercial Company who own the wharf and who would benefit largely if the wharf can be considered free from infection, will take such sanitary measures in Corinto (the elimination of the stegomyia mosquito), as will enable us to consider this port an uninfected one.

Corinto is a small place of about 1,200 inhabitants, favorably situated for this purpose, and, if reasonable energy wisely directed is used, there is no question but what this mosquito (stegomyia) can be eliminated from it, for this place at least; this is the only method of sanitation that will eliminate yellow fever. Corinto is in constant communication with towns of the interior, larger than itself, some of which are infected from time to time with yellow fever, and of the sanitary condition of which it is impossible for us to get such information as will enable us to judge of its existence. Corinto is thus continuously liable, or at least liable at times of which we have no knowledge, to the introduction of yellow fever, and the only way to prevent its being infected with that disease is to eliminate the stegomyia.

When this is done, if it is done, not only will it be an advantage to commerce, but will eliminate one point for the introduction of yellow fever from the north.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending March 10:

FRESH MEATS.

		Price CTS
Beef—Sirloin roast	per lb	25
Rump roast	do	25
Porterhouse	do	25
Rib-roast, short-cut, (not under 3½ pounds	do	18
Rib-roast, second cut	do	15
Chuck-roast	do	12
Soup	do	6
Stew	do	10
Corned	do	10, 12 14
Suet	do	6
Steaks—Sirloin	do	25
Porterhouse	do	25
Rump	do	25
Round	do	14
Veal—Cutlets	do	21
Short-cut chops	do	20
Loin	do	13
Entire forequarters	do	9
For stewing	do	9
Mutton—Entire forequarters	do	* 9
Short-cut chops	do	18
Leg	do	14
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	28
Legs	do	18
Pork—Cuts	do	20

MISCELLANEOUS.

Livers—Beef	per lb...	9
Calf	each...	60
Sausage—Pork	per lb...	16
Bologna	do	15
Frankfurter	do	15
Lieberwurst	do	15
Sweet bread—Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues	per lb...	12
Ox tongues	each ..	90

POULTRY AND GAME.

Chickens, dressed (milk-fed),	each...	†1.55
Chickens, roast	do	1.15
Ducks, fatted (fancy)	do	1.20
Ducks, dressed	do	90
Turkeys	per lb...	25
Broilers (chicken frys)	each...	65
Squabs	do	35
Eggs, fresh	per doz...	35
Geese (10 lbs.)	each...	2.45

CURED MEATS AND LARD.

Bacon—Strips	per lb...	23
English breakfast, sliced..	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45

DAIRY PRODUCTS.

Butter—prints, prime quality	per lb...	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	30
Gouda	do	30
Edam	each...	90
McLaren's	jar...	10, 15

FRUITS AND VEGETABLES.

Pineapples	each ..	20
Oranges	per doz...	10
Grape Fruit	each...	2½
Cranberries	per lb...	10
Lemons	per doz...	15
Apples	per lb...	5½
Apples, fancy table	per lb...	†10
Beets	per lb...	5
Limes	per doz...	12
Parsnips	per lb...	6½
Celery	bunch...	22
White potatoes	per lb...	3
Cabbage	do	2½
Onions	per lb...	3½
Sauerkraut	do	3½
Lettuce	do	15
Radishes	do	6
Cucumbers	per lb...	28
Sweet potatoes	do	2½
Yams	do	2½

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* Indicates reductions from last list.

† Indicates advance on last list.

** Indicates 5 cents allowed for return o bottle.

§ Sold only from Cold Storage and not from Commissaries.

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	New Price. CTS.
Veal loaf, ½s	tin	9	10
Corn starch, 1s	do		10
Salmon, "Bell," 1s	do	12	15
Candles, 1s	pks	21½	16
Maple syrup	qts	35	26
Maple syrup	gal	1.02	94
Pepper, ground, black	lb	12½	10
Bacon, sliced, 1s	tin	25	23
Bacon, sliced, 1s	G jars	24	25
Peaches, evap., 5s	tin	1.07	97
Beef, roast, 1s	do	11	13
Biscuits, soda, 5s	do	54	56
Biscuits, N.B.C., 1s	do	25	27
Ham, deviled, ½s	do	23	25
Jellies, 10-oz., asst'd	jars	21	18
Peaches, sliced	tin	10	17
Cigarettes, Louisville.	pkg	5	2

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, March 11, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Bodle, R. W.
Boyd, W. M.
Bradberry, R. T.
Coleman, John C. E.
Colton, Miss L.
Cossitt, Geo. C.
Dougherty, F. F.
Elrado, Mrs. Lela
Faxon, Wm. Rueben
Grout, F. E.
Havens, Frank H.
Hayne, Dr. Jas. A.
Johnson, Geo.
Kemper, S. V.
Knowlton, Mrs. C. F.
Lawson, Culboe
Pinkerton, Allen
Schnapp, B. M.
Shelow, Chas
Small, W. H.
Smith, Dwight
Stockamn, E.
White, H. J.

Rebekah Club.

THE CANAL RECORD:

The Isthmian Canal Rebekah Club No. 1 will hold their regular meetings every Wednesday evening at 7:30 o'clock in the lodge hall at Gorgona. All members are urged to attend and all eligible are invited.

MRS. S. E. CALVIT,
Secretary.

Gorgona, March 8.

Isthmian Baseball League.

Scores, March 8, 1908:

At Ancon Park: M. P. & M., 11; Culebra, 8.

At Empire Park: Empire, 9; Gatun, 0 (to Empire by forfeit, Gatun team failing to appear).

At Gorgona Park: Ancon, 8; Gorgona, 2.

STANDING OF THE LEAGUE.

March 9, 1908:

	Played.	*Won.*	*Lost.*	*Per cent.*
Ancon	10	8	2	800
M. P. & M	13	10	3	769
Empire	12	9	3	750
Culebra	11	6	5	555
Kangaroos	11	5	6	455
Gatun	10	1	9	100
Gorgona	11	0	11	000

To be played March 15, 1908:

At Empire Park: Empire vs. Culebra.

At Gorgona Park: Gatun vs. Ancon.

No game scheduled for Ancon Park on March 15.

Concert.

By the I. C. C. Band at Las Cascadas, C. Z., Sunday, March 15, 1908, at 3 p. m.:

PROGRAM:

1—March	*Col Goddard's*	Reeves
2 Selection	*George Washington, jr*	Cohan
3 Morceau.	*Narcissus*	Nevins
4 Waltz	*Golden Wedding*	St. Clair
6 Baritone solo	*Let All Obey*	Leach
D. E. NORCROSS.		
6 a Intermezzo	*Punch and Judy*	Henry
b Serenade	*Filipino*	Masten
7 Overture	*French Comedy*	Kela Bela
8 Descriptive	*Indian War Dance*	Bellstedt
9 Selection	*Mlle. Modiste*	Herbert
10 March	*Under One Flag*	Von Blon

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at La Boca, March 22.

PANAMA RAILROAD COMPANY

TIME TABLE No. 1

IN EFFECT MARCH 1st, 1908

SOUTH BOUND			Distance from Colon	MAIN LINE	Distance from Panama	NORTH BOUND			
No. 7 Pass.	No. 5 Pass.	No. 3 Pass.		*S Stop* *F Flag Station*		No. 2 Pass.	No. 4 Pass.	No. 6 Pass.	No. 8 Pass.
Daily	Daily	Daily		STATIONS		Daily	Daily	Daily	Daily
Leave	Leave	Leave	Miles		Miles	Arrive	Arrive	Arrive	Arrive
P. M.	A. M.	A. M.				A. M.	P. M.	P. M.	P. M.
4.35	10.30	5.30	00	† COLON	47.58	9.05	1.00	3.50	8.00
s 4.37	s 10.33	s 5.32	0.42	Cristobal	47.16	s 9.03	s 12.57	s 3.47	s 7.57
s 4.43	f 10.37	s 5.38	1.90	Mount Hope	45.68	s 8.58	12.53	3.42	s 7.52
f 4.48	10.43	f 5.44	4.52	Mindi	43.06	f 8.50	f 12.46	f 3.35	f 7.45
s 4.55	s 10.50	s 5.50	7.08	Gatun	40.50	s 8.43	s 12.40	s 3.30	s 7.40
4.56	10 51	5.51	7.20	† Gatun (cabin)	40.38	8.40	12.37	3.26	7.36
f 5 03	f 11.00	5.58	10.68	Lion Hill	36.90	8.33	f 12.30	3.19	f 7.29
f 5.08	f 11.06	6.03	12.75	Ahorca Lagarto	34.83	8.27	f 12.24	3 13	f 7.22
s 5.15	s 11.13	s 6.10	15.52	† Bohio	32.06	s 8.20	s 12.17	s 3.05	s 7.15
s 5.23	s 11.22	6.18	18.75	† Frijoles	28.83	s 8.10	f 12.08	2.58	s 7.06
s 5.31	s 11.31	s 6.26	21.62	Tabernilla	25.96	s 8.03	P. M. s 11.58	s 2.50	s 6.58
5 32	11.32	6 27	21.86	† Tabernilla (cabin)	25.72	8.02	11.56	2.49	6.57
5.35	11.35	6.30	22.84	Barbacoas	24.74	8.00	11.54	2.47	6.55
s 5.37	s 11.37	s 6.32	23.56	San Pablo	24.02	s 7.58	s 11.52	s 2.46	s 6.53
5.38	11.38	6.33	24.00	† San Pablo (cabin)	23.58	7.57	11.51	2.45	6.52
f 5.40	f 11.40	6.35	24.57	Bailamonos	23.01	7.54	f 11.48	2.43	f 6.50
s 5.45	s 11.45	s 6.40	26.02	† Mamei	21.56	s 7.50	s 11.45	2.40	s 6.47
5.49	11.50	6.45	28.22	† Gorgona (cabin)	19.36	7.42	11.38	2.33	6.38
s 5.53	s 11.53	s 6.49	28 53	† Gorgona	19.05	s 7.41	s 11.37	s 2.32	s 6.37
s 5.58	s 11.58	s 6.54	29.90	† Matachin	17.68	s 7.36	s 11.32	2.27	s 6.32
6 00	P. M. 12 01	6.56	30.70	† Bas Obispo (cabin)	16.88	7.33	11.28	2.24	6.28
s 6.03	s 12.03	s 6.59	31.26	Bas Obispo	16.32	s 7.32	s 11.27	s 2.23	s 6.27
6.05	12.05	7.01	31.98	† Bridge 52 (cabin)	15 60	7 29	11.24	2.20	6 24
s 6.09	s 12.09	s 7.05	32.83	Las Cascadas	14.75	s 7.26	s 11.20	s 2.17	s 6.21
6.11	12 11	7.07	33.49	† White House (cabin)	14.09	7.22	11.17	2.13	6.17
s 6.17	s 12.17	s 7.14	35.18	† Empire	12.40	s 7.17	s 11.13	s 2.10	s 6.14
s 6.22	s 12.22	s 7.19	36.18	Culebra	11.40	s 7.10	11.08	s 2.00	s 6.10
6.23	12.23	7.20	36.27	† Culebra (cabin)	11.31	7.09	11.06	1.59	6 09
6.30	12.30	7.26	39.04	Cucaracha	8.54	7.00	10.57	1.51	5.57
s 6.32	s 12.32	s 7.28	39.78	Paraiso	7.80	s 6.58	f 10.56	1.50	f 5.56
s 6.37	s 12.38	s 7.31	40.72	Pedro Miguel	6.86	s 6.54	s 10.52	s 1.48	s 5.52
6.38	12.39	7.32	41.09	† Pedro Miguel (cabin)	6.49	6.52	10.51	1.46	5.50
s 6.42	s 12.43	s 7.35	42.08	† Miraflores (cabin)	5.50	s 6.50	s 10.48	f 1.44	s 5.48
s 6.50	s 12.50	s 7.40	44.55	† Corozal	3.03	s 6.43	s 10.40	s 1.38	s 5.40
6.55	12.56	7.45	46.75	† La Boca Junct.	0.83	6.38	10.33	1.32	5.33
7.00	1 00	7.50	47.58	† PANAMA	00	6.35	10.30	1.30	5.30
P. M.	P. M.	A. M.		† *Telegraph Stations*		A. M.	A. M.	P. M.	P. M.
Arrive	Arrive	Arrive				Leave	Leave	Leave	Leave

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A. Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon

DEPARTMENTS

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra
Wm. Howard May, Secretary
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
Capt. George M. Hoffman, U. S. A., Assistant Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk
W. G. Comber, Division Engineer, La Boca
David V. Stratton, Chief Clerk

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun.
Sydney B. Williamson, Division Engineer Corozal.
E. A. LeMay, Chief Clerk.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra,
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson; Electrical Engineer.
W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra
J. H. Barbour, Chief Clerk.
Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal
Addison Bligh, Chief Clerk
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon
David C. O'Connor, Supt. of Schools, Ancon

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department.

John Burke, Manager, Cristobal.
W. F. Shipley, Sales Manager, Cristobal
S. M. White, General Storekeeper, Cold Storage Department, Cristobal.

The steamship *Carrisbrook* sailed from Gulfport, Miss., March 5, with a cargo of 2,792 piles for the Isthmian Canal Commission,

The following steamers have recently arrived at La Boca: February 29, *Aconcagua*, from Valparaiso; March 2, *City of Sidney*, from San Francisco, and *Olson & Mahoney*, from Portland, Ore; March 4, *Ecuador*, from Guayaquil; March 6, *Mackinaw*, from Central American ports. Departures were: February 29, *Manavi*, for Guayaquil, and *Neko*, for ports south; March 2, *City of Panama*, for San Francisco; March 4, *Victoria*, for Valparaiso; March 6, British cruiser *Shearwater*.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Finance	P. R.R.	Saturday	Mch.	7
Siberia	H.-A	Saturday	Mch.	7
Oroya	R.-M	Saturday	Mch.	7
Colon	P. R.R.	Thursday	Mch.	12
Prinz Joachim	H.-A	Saturday	Mch.	14
Advance	P. R.R.	Tuesday	Mch.	17
Sarnia	H.-A	Saturday	Mch.	21
Tagus	R.-M	Saturday	Mch.	21
Panama	P. R R.	Monday	Mch.	23
Allianca	P. R.R.	Saturday	Mch.	28
Prinz Aug. Wilhelm	H.-A	Saturday	Mch.	28
Finance	P. R.R.	Thursday	April	2
Siberia	H.-A	Saturday	April	4
Magdalena	R.-M	Saturday	April	4
Colon	P. R R.	Tuesday	April	7
Prinz Joachim	H.-A	Saturday	April	11
Advance	P. R.R.	Monday	April	13
Panama	P. R.R.	Saturday	April	18
Sarnia	H.-A	Saturday	April	18
Orinoco	R.-M	Saturday	April	18
Allianca	P. R.R.	Thursday	April	23
Prinz Aug. Wilhelm	H.-A	Saturday	April	25
Finance	P. R.R.	Tuesday	April	28

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Panama	P. R.R.	Monday	Mch.	9
Pr. Eitel Friedrich	H.-A	Tuesday	Mch.	10
Tagus	R.-M	Wednesday	Mch.	11
Allianca	P. R.R.	Sunday	Mch.	15
Prinz Aug. Wilhelm	H.-A	Tuesday	Mch.	17
Finance	P. R R.	Friday	Mch.	20
Prinz Sigismund	H.-A	Tuesday	Mch.	24
Colon	P. R.R.	Wednesdap	Mch.	25
Magdalena	R.-M	Wednesday	Mch.	25
Advance	P. R.R.	Monday	Mch.	30
Prinz Joachim	H.-A	Tuesday	Mch.	31
Panama	P. R.R.	Sunday	April	5
Pr. Eitel Friedrich	H.-A	Tuesday	April	7
Orinoco	R.-M	Wednesday	April	8
Allianca	P. R.R.	Friday	April	10
Prinz Aug. Wilhelm	H.-A.	Tuesday	April	14
Finance	P. R R.	Wednesday	April	15
Colon	P. R.R.	Monday	April	20
Prinz Sigismund	H.-A	Tuesday	April	21
Atrato	R.-M	Wednesday	April	22
Advance	P. R.R.	Sunday	April	26
Prinz Joachim	H.-A	Tuesday	April	28
Panama	P. R R.	Friday	May	1
Pr. Eitel Friedrich	H.-A	Tuesday	May	5

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Oroya	R.-M	Tuesday	Mch.	17
Tagus	R.-M	Tuesday	Mch.	31
Magdalena	R.-M	Tuesday	April	14
Orinoco	R.-M	Tuesday	April	28

The Panama railroad steamships sail at 3 p.m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company despatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Texan*, about March 14; *Asian*, about March 24; *William Cliff*, about April 14, and *Floridian*, April 26.

Yellow Fever Case From Guayaquil.

A case of yellow fever was found on board the steamship *Aconcagua*, which arrived here on February 29 from Guayaquil, Ecuador. The person suffering from the disease was the Rev. Rio Frio. He was taken to Ancon hospital, and isolated, and is now convalescent.

It is to be noted that this case did not originate in the Zone, and that there was no difficulty in so handling it as to prevent its spread. The last case which originated in the Zone was in May, 1906.

CANAL RECORD

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The Canal Record

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THE CANAL RECORD
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No communication, either for publication or requesting information, will receive attention unless signed by the full name and address of the writer.

Chairman's Monthly Report.

The report of the Chairman of the Isthmian Canal Commission for February is published in full in other columns of this issue of THE CANAL RECORD. It gives, as usual, specific information as to the progress of canal construction in all divisions of the work. It shows that the total excavation by steam shovels in the Culebra division during the month was 1,248,265 cubic yards, an increase of 19,759 cubic yards over the amount excavated in January. Of this amount, 1,176,752 cubic yards were removed from the Canal prism, and 71,513 from the Camacho and Obispo diversions. Compared with the work performed during the corresponding month of 1907, the total excavation by steam shovels in the Culebra division was nearly twice the amount for February, 1907, and the average output per shovel per day was 76 per cent. greater; the amount of rock was 11½ per cent. greater, and the amount of earth 11½ per cent. less. The number of working days in the month this year was twenty-four against twenty-three last year, and the average number of steam shovels working was forty-three this year against thirty-nine last year; the average amount of excavation by steam shovel per day this year was 1,186 cubic yards, against 674 cubic yards last year, and the average amount excavated per steam shovel per month was 28,475 yards this year, against 15,966 last year. The rainfall was insignificant during both months under comparison, and the average daily number of laborers at work during February was 6,557, a decrease of 285 from the January average.

At the Gatun lock site seven steam shovels were at work during the month, excavating 176,291 cubic yards. At the Gatun dam and spillway three shovels worked throughout the month; on the spillway site 106,506 cubic yards were removed. A fourth shovel was put in operation there the latter part of the month.

No European laborers were imported during the month; 461 men were brought from Barbados. The immigration for the month showed an excess of 1,207 men over the emigration; 95 men were employed in the United States during the month, and there was a net increase of fifty-four men in the gold force. Subsistence operations showed a decrease of $4,600 in revenue as compared with that of January, but there was a profit of $5,899 in total subsistence operations.

Pacific Division Work.

The new office building at Corozal for the Pacific Division of Lock and Dam construction is finished and the office of the Division Engineer was moved thereto on March 14. There are also in course of erection at Corozal for the use of the employes of the Division, one type 18, one type 17 and two type 14 houses.

Work on the lock site at Miraflores is well under way. Four steam shovels are at work, and new tracks are being laid on both sides of the lock pit as a dump for the excavated material, which will later be used as the location for the construction plant, the plans for which are now being prepared by the office force of the Division. A trestle is being built across the Rio Grande at the lower end of the lock site to make a connection with the Panama Railroad, which will facilitate the handling of supplies and material for the lock. Twenty-two scraper teams are at work on the spillway, about one and one-quarter miles from the lock site up the valley of the Cocoli river. With the exception of twenty new Oliver steel dump cars, which were delivered March 14, all the dump cars in use on the Division are old French material, as are also the ten locomotives which haul the trains.

Work at Porto Bello.

Work on the settlement at Porto Bello, where the rock quarries for the Gatun locks are located, is advancing steadily. The new village is across the bay, and a little over a mile distant from the native village of the same name. It already has a population of about 300 people. The buildings completed, or under construction, are an office building, a residence for the engineer in charge, bachelor quarters, and two barracks for Gallegos and one for colored laborers, with mess houses and kitchens. A dispensary and hospital building has been authorized, but at present tents are being used for this purpose, and also for the quarters of the District Physician. A complete system of sewerage and drainage will be built, together with a plan of general sanitation, work on which was begun on March 2. Work is being pushed on the reservoir, which will be formed from numerous mountain streams, and which will furnish an abundant supply of pure water. It is expected that the reservoir will be finished in about six months. A complete system of water pipes will connect the reservoir with all buildings. The Department of Sanitation has an inspector and about thirty laborers at work there, but it is expected that they will not remain longer than a month. The district physician will act as quarantine and port officer for both the new and old towns, and later as sanitary inspector as well. The new town will be under the jurisdiction of the Isthmian Canal Commission, an agreement to that effect having been made with the officials of the Republic of Panama.

Porto Bello is on the coast about eighteen miles northeasterly from Colon, and the tug *Porto Bello*, Captain Anderson, makes regular trips between the two points on Mondays, Thursdays and Saturdays.

Copies of the Annual Report.

It is officially announced that the supply of copies of the Annual Report of the Isthmian Canal Commission for the year 1907, which was sent to the Isthmus for distribution to employes, is exhausted, and that it will be impossible therefore, to comply with any further requests for copies.

Canal Zone Water Supply.

The report of the Physiologist of the Division of Municipal Engineering for the month of February, 1908, shows a uniformly good condition of the water in the various reservoirs in the Canal Zone. Samples were taken twice during the month and the data show the gradual change that is taking place, due to concentration, which always occurs during the dry season. Practically no fresh water is entering the various reservoirs, and the evaporation which takes place causes an increase in the organic and the inorganic composition of the water.

On February 28, two samples were taken from each reservoir, one from near the surface, and the other at some depth. A comparison of the shallow and deep samples shows a considerable difference to exist. An increase is noted in most cases in the color, free and albuminoid ammonia, total solids and irons. This condition is very similar to the stagnation period which exists in small lakes and reservoirs in the temperate zone. It is caused by lack of circulation in the water of the reservoir, with a resulting lack of oxygen; and putrefaction, and through it the presence of anærobic bacteria, sets in, by which the water acquires an offensive odor. Because of this fact it is advisable to draw the supply from as near the surface of the reservoir as possible. Where possible, the lower levels of water

NOTES OF PROGRESS.

(Continued)

present in the storage basins should be drawn off during the rainy season, and as soon after the close of the dry season as practicable.

Bacteria causing putrefaction are absent from the water in an appreciable amount, and the germ content of all the reservoirs is comparatively low. During the wet season, the higher germ content is undoubtedly due to the bacteria that are washed into the reservoir from the watershed. Many of these bacterial species are not native to water and soon die out; many others are removed by sedimentation which takes place at the close of the rainy season. The bacterial flora during the dry season is comparatively low and is made up of species common to water. Mineral analyses of the principal sources of supply were made for the purpose of determining an efficient and inexpensive method of still further softening the water, so that less scale would be formed in the boilers in use on the Canal work. These show that the solid matter was comparatively low. The amount of silica present in the water is high, due to taking into solution the soluble silicates, which are present in the rock of the watershed and basin. The amount of calcium and magnesia present is not high and the other mineral constituents are low. The general water supply in the Zone is what is commonly known as soft water.

Samples were taken twice during the month from the Panama and Colon water supplies with a view to furnishing the Panamanian authorities with reliable information in regard to the water supply of those cities. No objectionable taste or odor has been noticed in the water in either Panama or Colon during the past month, and bacteriologically the water at the two cities is good and compares very favorably with the best water as furnished by municipalities in the United States.

Unwarranted French Gloom.

The Panama Canal engineers compute that 183.4 cubic yards of earth, or over 12 carloads, were dug out every working minute during the month of December. That is equivalent to loading 183 city dump-carts per minute. The amount taken out in a day would fill 5,868 cars, making a train 33⅓ miles long, which would stretch almost all the way across the Isthmus. Such a trainload was taken out every working day in December.

Such figures make a little ridiculous the gloomy views expressed by M. Tardieu, the noted French editor of *Le Temps*, in the *Revue des Deux Mondes*. M. Tardieu, who is coming here to lecture at Harvard, has read somewhere that "the American company" has excavated only 4,400,000 cubic meters at Panama in three years, while the old French company excavated 55,000,000 meters in 8 years. A glance at a Ready Reckoner made it clear that we were digging not more than 1,500,000 meters per year, at which rate the present generation could not hope to see the completion of the Canal.

This melancholy prospect takes on a little different appearance when it is known that in the last three months of 1907 the excavation was greater than M. Tardieu credits us with for the entire three years of our operations. In December alone, we excavated 2,200,539 cubic yards, or 1,683,463 cubic meters, instead of one-twelfth part of the 1,500,000 meters we are supposed by our French critic to dig in a year. The excavation is no longer a problem that bothers us. At the present rate it could all be finished in four years. The thing that is expected to make the work last two or three years longer than that is the matter of dams and locks—an affair the French never had to touch at all.—*Collier's Weekly*, February 15.

Visit of the Torpedo Flotilla.

The second torpedo flotilla of the United States Navy arrived in Panama harbor on Saturday morning, March 14. It is composed of six torpedo boat destroyers and is in command of Lieut.-Commander Hutch I. Cone, with Lieut. John G. Church as flotilla Executive and Navigator. The staff officers are: Assistant Surgeon Robert C. Ransdell, Assistant Paymaster Fred E. McMillen, and Assistant Naval Constructor Edward C. Hamner, Jr. The vessels comprising the flotilla, with their officers, are as follows: *Hopkins*, Lieut. Alfred G Howe commanding, Ensign Clarence A. Richards, Midshipman Homer H. Norton; *Hull*, Lieut. Frank McCommon, commanding, Ensign Charles E. Smith, Midshipman Harold Jones; *Lawrence*, Ensign Ernest Frederick, commanding, Midshipmen Ross S. Culp and Randolph P. Scudder; *Stewart*, Lieut. Julius F. Hellwig, commanding, Ensign William T. Lightle, Midshipman R. S. Edwards; *Truxton*, Lieut. Charles S. Kerrick, commanding, Ensign Walter E. Reno, Midshipman Arthur C. Myers; *Whipple*, Lieut.-Commander Hutch I. Cone, commanding, Lieut John G. Church, Ensign Omenzo C F. Dodge, Midshipman Harry G. Knox. Each destroyer has a complement of about eighty men which gives a total of about 480 enlisted men with the flotilla.

On Saturday afternoon, Lieut.-Commander Cone made official calls at the American Consulate General, the American Legation, and on the President of Panama.

The American Minister gave a reception to the officers of the flotilla on Saturday afternoon, and in the evening the Tivoli Club gave a ball in their honor at the Hotel Tivoli. On Sunday afternoon there was a ball game at Ancon park between a team from the *Stewart* and the M. P. & M. team, which was won by the latter by the score of 12 to 6. After the ball game there was a bull fight at the Panama park, to which all officers and men in uniform were invited. In the evening the American Minister gave a dinner to the commanding officers.

On Monday afternoon, March 16, the Isthmian Canal Commission made an official call on the commanding officer, and in the evening, the Panamanian Government gave a banquet to the officers of the flotilla at the Hotel Central, Panama. On Tuesday, March 17, the Isthmian Canal Commission took the officers on a special train over the line of the Canal, starting from Panama at 7:30 a. m. In the evening the International Club of Panama gave a ball in their honor in the Sabanas, several miles from Panama, in a pavilion erected especially for the purpose.

On Wednesday afternoon, March 18, there will be a ball game at Ancon park between the Ancon team and a picked team from the flotilla. In the evening the University Club will give a "Smoker" in honor of the officers at its club house in Panama.

The flotilla will sail on March 21 for Acapulco, Mexico, its next stop.

New Schoolhouse for Colored Children at Empire.

The re-alignment of streets in the native town of Empire, in accordance with surveys completed by the Panama Railroad Company, which holds title to the land upon which the town is constructed, has rendered necessary the removal or demolition of the building now used as a schoolhouse for colored children. As it appeared that the removal of the building was impracticable, on account of the condition of the timbers, the construction of a new schoolhouse was authorized. The new building will contain four rooms, without verandas, and will be similar to the schoolhouse for white children at Ancon. The site selected is on the high ground immediately west of the town bordering on the slaughter house road. In 1906, the old municipality began the construction of a school building on this same lot, but abandoned the work after laying concrete foundations, which have remained standing. The new building should be ready for occupancy before the close of the current school term.

CANAL EXPENDITURES.

The following table shows expenditures for Canal work, classified monthly, since July 1, 1907. The figures give only expenditures which have been located. In addition, there have been some disbursements, such as purchasing material, etc., which it will not be possible to locate to a specified account until their use has been finally determined:

Period.	Civil Administration.	Sanitation.	Construction and Engineering.	Municipal Improvements.	Plant Account.	Total.
Prior to Jul. 1 1907	$1,423,384.51	$4,558,933 54	$13,328,895.38	$4,137,912.69	$18,593,459.52	$42,042,585.64
July..	51,183.84	149,270 94	962,477.19	146,131.93	580,562.68	1,889,626.58
Aug..	67,548.53	214,018.08	1,196,803.45	192,227.75	767,153.24	2,437,751.00
Sep...	63,239.62	253,108 77	1,194,304 85	107,840.85	1,068,300.58	2,686,794.67
Oct...	53,227.97	189,196.38	1,372,311 81	123,939 88	1,131,450.91	2,870,126.95
Nov..	54,529 02	166,381 82	1,217,120.31	115,625 44	1,105,590 16	2,659,246.75
Dec..	64,903.04	213,725.16	1,369,822.79	125,420 96	591,298.02	2,365,169.97
1908 Jan...	66,802 92	221,866.39	1,468,021.44	156,956.22	1,584,821.98	3,498,468 86
Tot'l	$1,844,819.45	$5,966,500.94	$22,109,757.22	$5,106,055.72	$25,422,637.09	$60,449,770.42

COMMISSION BUILDINGS.

V.

The Hotel Tivoli.

By P. O. Wright, Jr., Architect.

On August 3, 1905, authority was issued by the Chief Engineer of the Isthmian Canal Commission for the construction of a large hotel at Ancon, at a place known as Tivoli Hill. This hotel was to be for the accommodation of about 115 persons, employes of the Commission and transients, and was to be in design and finish of a better class than the other hotels which had been constructed at different places along the line of the Canal work. The construction of a hotel at Ancon had been under consideration for some time and considerable work on the project had been accomplished prior to the issuance of final authority.

The Tivoli property is located in the Canal Zone adjoining Panama, at a point lying between the railroad station and the Ancon Hospital grounds on the slopes of Ancon, a hill about 650 feet above the Pacific ocean. The property was acquired by the Commission in May, 1905, for $9,000, from Señores Abundio Caselli and Alfredo Pellas, and contains 7.39 acres. In order to transport the material to be used in the construction of the hotel, a spur of the Panama railroad was run through the property from the La Boca branch to the site of the building.

The hotel was erected at the highest part of the land, commanding a wide view of the Bay of Panama with its several picturesque islands, and of the entire city of Panama. The necessity for the erection of the hotel was urgent at the time on account of the scarcity of quarters in Panama, and the absolute need of providing a place of residence for the employes, as well as for those persons connected with, or interested, in the construction of the Canal who were constantly arriving from the United States, and were unable to find satisfactory accommodations in the hotels of Panama. It was also intended that the hotel should furnish headquarters and place of entertainment near Panama for employes and their families who were stationed along the line of the Canal work. With the latter object in view, a large room was provided for dances and recreation, and the construction of a large swimming pool was begun, occupying the whole of the first floor of the north wing. The latter feature however, had to be abandoned when it was decided that the space would be required for additional rooms.

The hotel is operated by the Commission on a commercial basis, and a substantial discount on the prices charged to transient guests is allowed to employes. The plant consists of the hotel proper, with separate buildings for the kitchen, baggage room and locker rooms for waiters, a furniture repair and storage building, four dormitories for the hotel help, and a house for the chef.

The main building, including the kitchen, cost $300,000, and required over a year in construction. It was opened formally to the public on January 1, 1907. A part of it was used temporarily for the entertainment of President Roosevelt on his visit to the Isthmus in November, 1906. Shortly before the completion of the hotel, the cupola of the north wing was struck by lightning, but fortunately no damage was done.

The hotel building is constructed around three sides of a rectangle, forming a court in front 193 feet across, and 91½ feet deep. The length of the building is 314 feet, and the depth from front to rear, measured on the two side wings, is 156 feet. The entrance which has a porte-cochere, is on the center line of the court, and opens into the lobby of the hotel, which is 60 feet wide and extends from front to rear. At the rear of the lobby is the ladies' reception room, semi-circular in form, and one story in height. On either side of the lobby are located the dining room and ball and billiard rooms. The wings on the first floor contain sleeping rooms. Over the center of the lobby is a large rotunda which extends through the three stories of the building, providing free circulation of air for all the floors.

The hotel is three stories in height and entirely surrounded on each floor, except for a short distance at the rear of the lobby, by a veranda 11 feet wide The second and third stories have wide halls, running on the axes, both of the central part and of the wings. Upon these halls and verandas each room opens. In the upper part of the hall partitions there are provided three pairs of windows in each room, to permit of ventilation and circulation of air through the building.

The hotel is of frame construction, except the lobby, which is of brick. It is built upon concrete piers, which elevate it from the ground and permit circulation of air under every part of it, and has a tile roof. In the center of the building, the brick walls are carried above the main walls and enclose a large deck, roofed with copper and covered with wood gratings. From this deck, a magnificent view of the bay and city of Panama is obtained, with Ancon in the rear, and the hills adjacent to Culebra visible ten miles in the distance.

The rooms in the main part of the hotel are arranged singly, with public baths and toilets separate, and those in the wings, in suites of two rooms, with private baths. Each room is provided with electric lights, and those not connected with baths contain sanitary lavatories. The walls and ceilings of all rooms, except the lobby, dining and ball rooms, and the ladies' reception room, are of matched and beaded ceiling, and are finished generally in green stain with trim and ceilings white.

The walls of the dining and ball rooms are wainscoted with paneling 8 feet high, and above that are finished similar to the others. The lobby and ladies' reception room are finished in plaster, and painted.

There are in the building 120 sleeping rooms, of which 52 are arranged in two room suites, with private baths, and there are 68 single rooms, with public baths and toilets. In addition to these there are linen and storage rooms, janitors' closets, a billiard room and barber shop.

The kitchen, which is connected by a screened passageway with the main building, is a detached building one story in height, with concrete floor and tile roofs, and has a large refrigerator room, store room and serving room. It is located at the rear, near one end of the hotel, and is provided with steam from a nearby pumping plant for the operation of steam kettles, warming tables, etc.

The construction of this hotel has fulfilled the requirements originally contemplated and has done much to relieve the monotony of life upon the Isthmus, and to reduce the expenses of employes when in Panama. The land about the hotel has been graded and turfed and roads have been constructed from the railroad station and around the building. Other roads connect the hotel with the Ancon hospital grounds, the new Administration building, and residences on the eastern slope of Ancon hill. Adjacent to these roads the Commission has established a settlement by erecting houses intended to accommodate all American employes whose work requires their residence near Panama.

Teachers' Association Meeting.

The third White Teachers' Convention of the Zone public schools met at Ancon at 8:30 a. m., March 14, 1908, for which the following program was prepared:

I. The Purpose of Arithmetic—Leader, Miss Ida Altstaetter.

II. Method in Primary Grades—(*a*) Arguments for and against formal introduction of numbers in the first grade; (*b*) Scope of number work in the first grade. Leader, Miss Jessie J. Heller.

III. Formal number work—When to be begun; the development of the number combinations; fractions; book-work. Leader, Miss Mabel H. Mills.

IV. Course of study in the four higher grades, *i e.*, from the fourth to the eighth inclusive. Leader, Mrs. Mamie Miracle.

V. Illustrative Lessons—In the first three grades; in the upper grades. Leader, Miss Grace Yarborough.

On account of illness, Miss Mabel H. Mills, Miss Catharine Bailey, Miss Grace Yarborough, and Mrs. Winnifred C. Ewing were unable to be present.

The paper by Miss Ida Altstaetter on "The Purpose of Arithmetic" was based largely on the method of recitation by Charles A. and Frank McMurray. The suggestions offered by Miss Altstaetter were of practical character, and embodied the work that she has done in her school at Culebra.

The convention adjourned to meet again at Ancon, Saturday, April 11.

Bids for Lock Construction Plant.

Award has been made to the General Electric Company, Schenectady, New York, for the necessary turbo-generators and accessories for the lock construction power plant at Gatun and Miraflores. The bids on the eight duplex cableways and the two cable railways for the Gatun power plant have been rejected, none of them having been considered satisfactory. New bids will be called for in about a month.

Dredging at La Boca.

The total output for each of the three dredges in the La Boca Dredging Division from March 1 to March 14, inclusive, was as follows: Dredge A-2, 65,466 cubic yards, place measurement; dredge 14, 71,415 cubic yards, place measurement; suction dredge *Culebra*, 228,102 cubic yards, hopper measurement. The total combined output for the period was 364,983 cubic yards. The hopper and place measurement of the excavation done by the suction dredge *Culebra* during the month of February, 1908, showed a difference of less than one per cent.

SOCIAL LIFE OF THE ZONE.

Semi-Annual Election of Officers in the Women's Clubs.

The Pedro Miguel Woman's Club held its semi-annual election of officers March 11, with the following result: Mrs. F. R. Roberts, re-elected president; Mrs. L. M. Vacher, vice-president; Mrs. H. W. Shick, secretary, and Mrs. W. Piper, treasurer, both re-elected.

The literary department of the club is arranging for a "Dixie" evening which will be given in the near future.

The philanthropy department of the Cristobal Woman's Club met at the residence of the chairman, Mrs. Thomas E. Brown, March 13, when Miss Rose Johnson gave a talk on local conditions and the possibility of settlement work in Panama and Colon. This department is investigating the subject with a view to taking up such work, particularly among the children, and establishing a day nursery with a paid matron in charge. Conferences will be held with prominent women of Panama and Colon, and it is expected that this work will form an important part of the next year's work of the club.

A suggestion has been made that work of this character should be taken up by other clubs along the line, especially where native villages are situated close to the American settlements. The difference in language presents a difficulty, but with the aid of pictures, kindergarten materials for work, and other attractions, this difficulty would be soon overcome. The object of these day nurseries would be to teach the parents, through their children, something of the beauty and moral order of life. It would also be a means of providing the older girls of the communities with occupation and interest which they might specially call their own. The settlement work would be arranged and carried on under a supervising committee of club women. Outside of the natural neighborly kindness and the promotion of the community spirit, there is little scope for philanthropic work among the Zone clubs, and the idea has been very favorably received.

Although situated at a seemingly remote distance from the social centres of the Canal Zone, Camp Elliott has, nevertheless, a distinctive and interesting social life of its own. The camp is named for Brig.-Gen. George F. Elliott, who was commandant of the post in 1903, and who is now commandant of the entire United States Marine Corps. The Marines have been in active service only twice since the camp was established. The present force consists of one battalion of about two hundred and fifty to three hundred men under the command of Major J. H. Russell. The officers and their families are pleasantly quartered on one of the most picturesque elevations in the Zone. They overlook Bas Obispo Cut, a long sweep of the Panama railroad, and the town of Bas Obispo. The barracks are attractively situated just below the officers' houses, and there is a good parade ground. Major Russell is making several alterations in the camp, among which are improved quarters for the non-commissioned officers, a baseball ground and provision for out-of-door athletic sports. There is a theater, which has been one of the social diversions of the camp, where plays are given by the men, most of which are original. The scenery and decorations were painted by the men, and the Marine band furnishes the music.

Among the officers and their wives there is considerable visiting along the line, and in the immediate circle, card parties, luncheons and dinners, many of these being formal functions, are of frequent occurrence. The Camp Elliott ladies have been elected honorary members of the Cristobal Woman's Club from its organization, and are frequent visitors at the literary and social meetings of the club.

The Paraiso Woman's Club held its regular business meeting in the Commission club rooms March 12. New officers to serve for the next six months were elected as follows: Mrs. E. S. Waid, president; Mrs. W. A. Lane, first vice-president; Mrs. W. Downs, second vice-president; Mrs. Ellerwood, secretary; Mrs. T. C. Proud, treasurer. Mrs. W. B. McCombs was appointed chairman of the entertainment committee. A vote of thanks was tendered Mrs. James C. Barnett, the retiring president for her willing and untiring service during the term of office. A number of local improvements have been effected in Paraiso due to the efforts of the woman's club. Several new members have been added to the list and the club has now a membership of nearly fifty. The next meeting will be held at the residence of Mrs. Barnett, and will be the regular sewing circle meeting.

The Culebra club meets at the regular hour March 19, when the speaker for the afternoon will be Dr. Hezadiah Crabtree, who will give an address on her personal experience of the San Francisco earthquake. Dr. Crabtree is a practicing physician in San Francisco, who is spending some time on the Isthmus as the guest of her brother, Dr. Geo. H. Crabtree, District Physician at Culebra.

The Las Cascadas Woman's Club had a good attendance at the regular meeting March 12. The business meeting was short, and the afternoon, under the direction of the entertainment committee, was spent in playing pedro. Prizes were won by Mrs. Williams and Mrs. Doyle. The entertainment committee gave a social on Saturday evening, March 14, when many members of the community were guests.

Owing to the attraction of the torpedo flotilla in Panama harbor, and an excursion which had been arranged for a trip to Taboga, the dedication of the new church room in the lodge room in the lodge at Paraiso, which was to have taken place March 15, has been postponed until the third Sunday in April. Rev. J. L. Wise of Gorgona, assisted by Rev. J. H. Sobey will preside at the dedication. Special music will be provided for the occasion.

The Canal Zone Medical Society held its regular meeting at the mess hall in the Ancon hospital grounds March 14, the business portion of the evening being devoted to the election of officers. Col. W. C. Gorgas was elected president; Maj. J. F. Leys of the Colon hospital, vice-president, and Capt. Robert E. Noble, of Ancon, secretary and treasurer. The retiring officers are Dr. Samuel T. Darling, of Ancon, and Dr. Geo. H. Crabtree of Culebra. One object of the society is the study of tropical diseases and their treatment, and the comparative treatment of similar diseases common alike to tropical and temperate climates. At the April meeting, Colonel Gorgas will read a paper on yellow fever.

PERSONAL.

Ven. Archdeacon Bryan will sail for New York on the *Finance*, March 20, for a short visit in the States. He expects to return to the Isthmus before Easter. During his absence the services at the Protestant Chapel, Ancon Hospital, will be conducted alternately by Rev. E. J. Cooper of Colon, and Rev. George O. Eskins of Panama.

Dr. C. G. Andrews, District Physician at Ancon, will sail on the *Finance*, March 20, for a seven weeks' vacation in the States, and Dr. James A. Hayne, Assistant Physician at Culebra, expects to sail for the States on the *Advance*, March 30, for a six weeks' vacation.

Card of Thanks.

THE CANAL RECORD:

I wish to express through your columns my thanks and appreciation for the great kindness and sympathy which have been shown me during Mr. Sykes' illness and since he has been taken away.

MRS. H. W. SYKES.

Gorgona, Mar. 14.

Empire Masonic Club.

THE CANAL RECORD:

All Master Masons: A stated meeting of the Empire Masonic Club will be held in Kangaroo Hall, Empire, Friday, March 20, at 7:30 p. m. Judge Gudger is expected to give a talk and all members and brothers are requested to be present.

H. W. SAWTELLE,
Secy.-Treas.

Empire, March 16.

The Paraiso Eagle Club.

THE CANAL RECORD:

As we have organized an Eagle Club in Paraiso, we wish to let all the Eagles in the Zone know that we meet in the new lodge room at Paraiso every Friday at 7:30 p. m. All Eagles in the Zone are fraternally invited to be present. Don't forget the date, and remember we all want to be there.

PARAISO EAGLE CLUB.

Paraiso, March 16.

Lost.

On Monday morning, March 2, either on Panama railroad train No. 2, between Culebra and Empire, or in the vicinity of Empire shops yards around power plant, an Elgin "Overland" gold-filled hunting case watch; front face of case has initials "H. T. C." engraved thereon. When lost, watch carried a plated fob of triangular shape, with impression of Paul Revere on one side, and on the reverse an "ad." relating to The Revere Rubber Co. Fob was attached to watch by a small leather strap. A suitable reward, with no questions asked, will be paid for the return of the above to Harry T. Coffey, care Electrical Engineer's Office, Administration Building, Culebra.

CANAL WORK FOR FEBRUARY.

Monthly Report of the Chairman to the Secretary of War.

March 12, 1908.

The Honorable,
The Secretary of War,
Washington, D. C.

Sir: I have the honor to submit the following report of operations on the Isthmus for the month of February, 1908:

Department of Construction and Engineering.

CULEBRA DIVISION.

The total amount of material excavated in this Division during the month was 1,248,265 cubic yards, an increase of 19,759 cubic yards over the amount excavated in January. Of this amount, 1,176,752 cubic yards were removed from the Canal prism, and 71,513 cubic yards from the Camacho and Obispo diversions.

For comparison with the work performed during the corresponding month of the previous year, the following table has been prepared:

Period.	Total amount of material excavated by steam shovels.	Classification of material		Av. No. of steam shovels working during month.	Wk'g days in m'th	Av. amount excavated per steam shovel per day.	Av. amount excavated per steam shovel per month
		Rock.	Earth.				
1907 Feb.	*cu. yds.* 636,563	% 50	% 50	39.87	23	*cu. yds.* 674	*cu. yds.* 15,966
1908 Feb.	1,243,501	61½	38½	43.67	24	1,186	28,475

Rainfall during month: 1907, 0.31 inches; 1908, 0.01 inches.

It will be noted that the total excavation by steam shovels in the Culebra Division during the month of February was nearly twice the amount for the corresponding month in 1907, and that the average output per shovel per day was 76 per cent. greater.

The rainfall was insignificant during both periods under comparison.

During the month, 221,202 linear feet of drilling were accomplished and 199 tons of explosives were used.

The rock channelers and rock crusher at Bas Obispo were continued in operation.

During the month, 10.9 miles of new track were laid and 7.4 miles of old track were removed.

The average daily number of laborers at work was 6,557, a decrease of 285 from the preceding month.

CHAGRES DIVISION.

The total amount of material excavated from the Canal prism in this division was 200,145 cubic yards, an average of ten steam shovels being worked during the month.

The drilling aggregated 28,752 linear feet, and 27¼ tons of explosives were used.

During the month, 6½ miles of new track were laid and 2¼ miles of old track were removed.

The average number of employes at work on this division was 2,004, an increase of 478 over the preceding month.

The rainfall for the month at San Pablo was .09 inches.

Calculations and maps of the proposed changes of Canal axis were completed and submitted.

COLON DIVISION.

Five dredges worked on this division during the month, three in the Canal prism in Limon bay and two in the old French canal above the dry dock. The total excavation of the dredges amounted to 427,722 cubic yards. Four dredges were laid up for repairs at different times during the month.

A general overhauling was given the tugs *Gatun* and *Cristobal*, and minor repairs were made to other floating equipment.

Work was continued at Mindi hills by two steam shovels, the output amounting to 65,632 cubic yards. The drilling at this point aggregated 12,933 linear feet.

GATUN LOCKS.

The seven shovels working at the lock site excavated 176,291 cubic yards during the month. The drilling amounted to 1,062 linear feet.

The work at Porto Bello included excavation from the site of the waterworks dam, the site for the handling plant, and the site for the power plant, and drilling at the site of the power plant and the quarry site. Various machinery was installed.

The masonry designing force was engaged in studies in connection with the Gatun locks during the month. On February 21, Lieut.-Col. H. F. Hodges was placed in charge of the force in Washington engaged in the designing of lock gates.

GATUN DAM AND SPILLWAY.

Three shovels worked throughout the month on the spillway site, removing 106,506 cubic yards; a fourth shovel was put in operation during the latter part of the month. Borings were made at different points and some clearing was done on the west side of the spillway.

Considerable work was done on excavation and stripping on a test pit on the lower end of Gatun island for materials for the dam. Two additional test pits were dug to a depth of eight feet, showing a fairly uniform mixture of clay and sand throughout.

Work on the three pipe-line suction dredges progressed satisfactorily during the month.

LA BOCA DIVISION.

Three dredges were worked in this division during the month, all operating in the Canal prism proper. The total excavation amounted to 682,271 cubic yards.

A survey was made and notes plotted for the proposed new wharf at La Boca.

The tug *E. G. Reynolds* arrived at La Boca on February 23. Extensive repairs to this tug were found necessary as a result of the rough voyage.

Five dredges were repaired during the month, and minor repairs were made to other floating equipment.

The work of dry excavation was well in hand at Cardenas hill at the end of the month; considerable track was laid; one steam shovel and a number of French dump cars were put in operation, and drilling and other work was started.

LOCKS AND DAMS.

Borings were continued for the purpose of ascertaining the nature of the sub-strata along the Canal axis between Pedro Miguel and Panama.

Excavation was continued at the Miraflores lock site, and at the end of the month five shovels were in operation. The total dry excavation from the Canal prism during the month was 38,661 cubic yards.

RELOCATION OF PANAMA RAILROAD.

A temporary trestle was driven across the Chagres river on spur number 13, near Gorgona, for a distance of 310 feet, and one steam shovel was operated in the construction of the roadbed. No other temporary tracks were built and no tracks were removed.

During the month, 31,624 cubic yards of material were excavated, and 145,328 cubic yards were placed in embankments.

In all, 1,860 feet of temporary trestle were driven.

Work was continued on the construction of Miraflores tunnel and various bridges and culverts.

During the month, 2,162 linear feet of track were laid and 1,030 linear feet of track were ballasted.

The force of laborers engaged on the work of relocation averaged 1,000 men.

DIVISION OF MUNICIPAL ENGINEERING.

The usual maintenance work on this division in connection with waterworks, sewers and paving was continued during the month. Work was commenced on a number of small jobs of new construction, and estimates and drawings were made for proposed improvements at different points.

MECHANICAL DIVISION.

The usual work was performed by this division in connection with the installation of machinery in the shops and power plants, the erection and repair of equipment, and electric wiring and installation at various points. Miscellaneous new and repair work was done for other divisions and departments.

DIVISION OF BUILDING CONSTRUCTION.

During the month, this division completed 25 items of construction, which included 2 post-offices, 6 storehouses, 1 market, 1 lodge hall and church, 1 office building, and a number of type houses. Repairs were made to 128 buildings; 6 buildings received alterations, and 4 old buildings were demolished.

DIVISION OF METEOROLOGY AND RIVER HYDRAULICS.

The usual observations and measurements were continued during the month.

The mean temperature for the month was 82 degrees at Ancon, 77 degrees at Bas Obispo, and 80 degrees at Cristobal. The total evaporation was 6.557 inches at Ancon, 5.729 inches at Bas Obispo, and 7.958 inches at Cristobal.

The rainfall was 1.29 inches at Gatun, 0.00 at Empire, and .55 inches at La Boca.

Department of Labor, Quarters and Subsistence.

No European laborers were imported during the month. Four hundred and sixty-one men were brought from Barbados. Aside from laborers brought in by the Commission, the immigration to the Isthmus showed an increase over the emigration, the excess for February amounting to 1,207 men, practically all of whom were steerage passengers.

A total of 95 men were employed in the

United States during the month. There was a net increase of 54 men in the gold force.

The only construction of quarters authorized during the month was one type 14 house at Cristobal. Eighty-nine assignments were made to married quarters, but not all of these assignments were to families who had not previously occupied quarters, some of them representing transfers from one point to another. At the end of the month there were 540 applications on file, as against 583 for the previous month.

The subsistence operations showed a decrease of $4,600 in revenue as compared with the revenue of the previous month, but there was a profit of $5,899 in total subsistence operations.

Department of Civil Administration.

COURTS.

The Supreme Court disposed of one civil and two criminal cases during the month. In the circuit courts, 3 civil and 51 criminal cases were heard and disposed of. In the district courts, 19 civil and 483 criminal cases were tried. Among the important cases was that of Joaquin Segrera, who was convicted of the murder of Enrique Vega, on December 13, 1907, and was sentenced to be hanged on September 18, 1908.

Under date of February 16, 1908, the President signed an Executive Order directing that in criminal prosecutions in the Canal Zone wherein the penalty of death or imprisonment for life may be inflicted, the accused shall enjoy the right of trial by jury unless he shall voluntarily elect to be tried under the procedure prescribed in Section 171 of Act No. 15 of the Laws of the Canal Zone.

REVENUES.

The usual business of this department was prosecuted, embracing all matters in connection with the postal service, lands, collection of customs, internal revenues, miscellaneous collections, and the administration of estates. Thirty-nine vessels entered the ports of Ancon and Cristobal and 42 vessels cleared.

POLICE DEPARTMENT.

Fourteen men were enlisted in the Police Department during the month of February, making the total force, at the end of the month, 224 officers and men. The number of arrests was 511, as compared with 522 in January. Six convicts were committed to the penitentiary and three convicts were discharged, eighty-nine prisoners remaining in confinement at the end of the month. The coroner reported 13 deaths in the Canal Zone requiring his action.

DIVISION OF PUBLIC WORKS.

The average daily consumption of water in Panama and Colon in February was 770,793 gallons and 515,421 gallons respectively, as compared with 762,161 gallons and 531,789 gallons, respectively, in January. Practically all bills for water rents in both cities for the last quarter of 1907 have been collected.

FIRE DEPARTMENT.

Eight fires were reported in the Canal Zone during the month. The most serious of these fires occurred on a trestle on the Panama railroad at Gatun, resulting in a loss of $428. On the night of February 24, a serious fire occurred in Colon, destroying a block containing fourteen frame buildings on D street, between Fourth and Fifth streets, valued at $57,900. Further spread of the fire was prevented by the combined efforts of the Colon and Cristobal departments. Five additional firemen were appointed during the month, increasing the total strength of the department to 39 paid firemen and 300 volunteers.

DIVISION OF SCHOOLS.

The enrolment in the schools for white children was 517 in February, as compared with 468 in the preceding month. The increase in enrolment was due mainly to the opening on February 5, of the new school at Colon beach, with 38 pupils enrolled. There was an increase in the enrolment of colored pupils from 1,151 in January, to 1,249 in February.

There are at present eleven schools for white children in the Canal Zone, and seventeen schools for colored children. The teaching force embraces twenty-four teachers for white children and twenty teachers for colored children.

Department of Sanitation.

[The full report of this department was published in THE CANAL RECORD last week.]

Respectfully,

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Gatun Steam Shovel Work.

The maximum daily output of the six steam shovels working at the Gatun lock site for the week ending March 7, was made on Friday, March 6, when 9,248 cubic yards, car measurement, were excavated, an average of 1,541 cubic yards per shovel. During the same period, the four shovels at the spillway excavated a total of 29,306 cubic yards, car measurement, the largest daily output being on Monday, March 2, when 6,276 cubic yards were removed, an average of 1,569 cubic yards per shovel. Steam shovel No. 119 made the largest output for any one day during the week, loading 2,556 cubic yards on March 2.

The subjoined table shows the record of steam-shovel work at the lock site and spillway at Gatun for the month of February, 1908:

GATUN LOCKS.

Number of Shovel.	Amount excavated	Number of working days.	Daily average.
102............	20,296 cu. yds.	15	1,353
104............	27,720 cu. yds.	21	1,320
107.....	32,806 cu. yds.	24	1,367
117............	24,074 cu. yds.	18	1,337
120............	23,424 cu. yds.	23	976(a)
129............	31,604 cu. yds.	24	1,317
155............	16,367 cu. yds.	14	1,169

Total...176,291 cu. yds.

7 shovels—Daily average per shovel...... { 1,259 cu. yds

(a) The average of this shovel is low on account of being engaged in cleaning off the core wall.

GATUN DAM AND SPILLWAY

Number of shovel.	Earth excavation.	Rock excavation.	Total.	Number work'g days.	Daily average
113......	16,463	5,538	22,001	24	916
114......	12,348	7,747	20,095	24	837
119......	30,263	4,325	34,588	24	1,441
252......	29,540	282	29,822	17	1,754

Total.........................106,506

4 shovels—Daily average per shovel....... { 1,196 cu. yds

CANAL ZONE LAND.

Its Use, Control, and Ownership.

Mr. Mann of Illinois introduced in the House of Representatives on March 4, 1908, the following bill, which was referred to the Committee on Interstate and Foreign Commerce and ordered to be printed:

A Bill relating to the use, control and ownership of lands in the Canal Zone, Isthmus of Panama:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President is hereby authorized to grant leases of the public lands in the Canal Zone, Isthmus of Panama, for such period, not exceeding twenty-five years, and upon such terms with respect to payments, whether annual or a single payment for the entire term, as he may deem advisable. No lease, however, shall be granted for a tract of land in excess of fifty hectares, nor to any person who shall not have first established, by affidavit and by such other proof as may be required, that such person is the head of a family or over the age of twenty-one years, and that the application for a lease is made in good faith for the purposes of actual settlement and cultivation, and not for the benefit of any other person whatsoever, and that such person will faithfully comply with all the requirements of law as to settlement, residence, and cultivation. In granting such leases preference shall be accorded to actual occupants of lands in good faith.

SEC. 2. That no portion of the lands of the United States within the Canal Zone shall be leased hereunder unless it shall first be made to appear, by a statement or plat filed by the Isthmian Canal Commission with the Collector of Revenues for the Canal Zone, that it is not contemplated to use such lands in the work of canal construction or to set the same aside as a town site; and all leases shall be made subject to the provision that if at any time it shall become necessary, notwithstanding, for the United States to occupy or use any portion of the leased lands for the work of canal construction, it shall have the right to do so without further compensation to the lessee than for the reasonable value of the necessary improvements made upon said tracts by the lessee, the same to be determined by the courts of the Canal Zone.

SEC. 3. That all leases of lands hereunder shall reserve to the United States all mineral, oil, and gas rights in the lands leased.

SEC. 4. That in all cases where occupants claim to deraign title to lands lying within the Canal Zone from the claimants or occupants of said lands as shown on the Harrison-Arosemena map of May 19, 1862, and in all cases where lands are claimed under a title valid against the Government of Spain or the Republic of Colombia, the President shall be authorized, out of the contiguous or adjacent public lands of the United States or of the Panama Railroad Company, to convey to such claimants or occupants such portion of said public lands as may in his judgment properly compensate such claimants or occupants for lands claimed by them and taken by or surrendered to the use of the Isthmian Canal Commission for the purpose of canal construction; and he shall also be authorized, for the purpose of effecting a settlement of right-of-way claims along the line of the canal, to confirm to such claimants or occupants title to their lands to such an extent as may seem to him advisable.

SEC. 5. That the President may, in his discretion, require a land survey to be made of the Canal Zone, dividing the same, by due north and south and east and west lines, into sections one kilometre square.

SEC. 6. That the powers conferred upon the President under this act may be exercised by him through the Isthmian Canal Commission.

In order that work may begin on the excavation of the lock site at Pedro Miguel, the crossing of the Canal prism by the Panama railroad at that point will have to be moved. A new trestle is being built a short distance south of Paraiso, work on which is nearing completion, and trains will be running over it in the near future.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending March 17:		*Price.*
FRESH MEATS.		CTS
Beef—Sirloin roast	per lb	25
Rump roast	do	25
Porterhouse	do	25
Rib-roast, short-cut, (not under 3½ pounds	do	18
Rib-roast, second cut	do	15
Chuck-roast	do	12
Soup	do	6
Stew	do	10
Corned	do	10, 12 14
Suet	do	6
Steaks—Sirloin	do	25
Porterhouse	do	25
Rump	do	25
Round	do	14
Veal—Cutlets	do	21
Short-cut chops	do	20
Loin	do	13
Entire forequarters	do	9
For stewing	do	9
Mutton—Entire forequarters	do	9
Short-cut chops	do	18
Leg	do	14
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	28
Legs	do	18
Pork—Cuts	do	20
MISCELLANEOUS		
Livers—Beef	per lb...	9
Calf	each...	60
Sausage—Pork	per lb...	16
Bologna	do	15
Frankfurter	do	15
Lieberwurst	do	15
Sweet bread—Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues	per lb...	12
Ox tongues	each...	90
POULTRY AND GAME.		
Chickens, dressed (milk-fed),	each...	†1.55
Chickens, roast	do	1.15
Ducks, fatted (fancy)	do	1.20
Ducks, dressed	do	90
Turkeys	per lb...	25
Broilers (chicken frys)	each...	90
Squabs	do	35
Eggs, fresh	per doz...	35
Geese (10 lbs.)	each...	2.45
CURED MEATS AND LARD.		
Bacon—Strips	per lb...	23
English breakfast, sliced..	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45
DAIRY PRODUCTS.		
Butter—prints, prime quality	per lb ..	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	30
Gouda	do	30
Edam	each...	90
McLaren's	jar...	10, 15
FRUITS AND VEGETABLES.		
Tangerines	each...	2
Oranges	per doz...	10
Grape Fruit	each...	2½
Cranberries	per lb...	10
Lemons	per doz...	15
Apples	per lb...	5½
Apples, fancy table	per lb...	†10
Beets	per lb...	5
Limes	per doz...	12
Parsnips	per lb...	6½
Celery	bunch...	22
White potatoes	per lb...	3
Cabbage	do	2½
Onions	per lb...	3½
Sauerkraut	do	3½
Lettuce	do	15
Radishes	do	6
Cucumbers	per lb...	28
Sweet potatoes	do	2½
Turnips, yellow and white	do	3½
Yams	do	2½
Carrots	per lb...	5½

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* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return o. bottle.*

§ *Sold only from Cold Storage and not from Commissaries*

NOTICE OF PRICE CHANGES.

		Old Price.	*New Price.*
		CTS.	CTS.
Oban biscuits, 1s	tin	30	25
Pears, 8s	do	30	25
Peaches, 3s	do	25	22

Isthmian Baseball League.

Scores, March 15, 1908:

At Empire Park: Empire, 3; Culebra, 2.

At Gorgona Park: Ancon, 9, Gatun, 0 (to Ancon by forfeit, Gatun team failing to appear).

At Gorgona Park: Ancon, 5: Gorgona, 2 (exhibition game).

STANDING OF THE LEAGUE.

March 16, 1908:

	Played.	*Won.*	*Lost.*	*Per cent.*
Ancon	11	9	2	818
M. P. & M	13	10	3	769
Empire	13	10	3	769
Culebra	12	6	6	500
Kangaroos	11	5	6	455
Gatun	11	1	10	091
Gorgona	11	0	11	000

To be played March 22, 1908:

At Ancon Park: Ancon vs. Gorgona.

At Gorgona Park: Gatun vs. Empire.

Bowling League, Empire Y. M. C. A.

A local bowling league has been formed, and the first game on the schedule was played on Monday evening, March 16. The teams, and the men composing them, are as follows:

Baseball team: Goodwin (captain), Dougherty, Hayes, Case and Guynup; Machine Shops: Edwards (captain), Gustavson, Hagan, Shaughnessy and Euerle; Disbursing Office: Brown (captain), Johnson, Riddle, Durand and Coonly; Culebra Division: McAdam (captain), Whaler, Potter, Sill and Windsor; Mechanical Office: McGinsey (captain), J P Mead, C. H. Mead, Becker and Rabbitt; Post Office: Gorham (captain), Drake, Nickerson, Brett and Bachler.

A prize trophy, in the form of a shield, will be presented to the winning team.

Concert.

By the I. C. C. Band at La Boca, C. Z., Sunday, March 22, 1908, at 2:45 p. m.:

PROGRAM:

1 March............*Bersagleiri*........ Eilenberg
2 Selection............*Mlle. Modiste*.... ...Herbert
3 Waltz............*My Lady Laughter*... Blake
4 {a Danse characteristic.........*Thesis*.......................Losey
{b Intermezzo ......*Nippono*.................Lincoln
5 Selection............*Reminiscences of Scotland*............Godfrey
6 Caprice............*The Whistler and His Dog*...............Pryor
7 Overture............*Schauspiel*............ .....Bach
8 {a Two-step.........*La Likette*.............Gauwin
{b Morceau..........*Narcissus*.................Dovin
9 Indian intermezzo.......................*Heap Big Injun*.......Sawyer
10 March............*Philadelphus*.........Wiegand

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Gorgona, March 29.

Contract has been awarded for the construction of a type "A" jail at Corozal and a similar one at Las Cascadas, to Herman Bolten, at $1,285 each for all labor, and to Green & Wilson for the construction of a type 14 house at Cristobal, for $2,300. All material will be furnished and delivered at the building site by the Commission.

The extension to the road along the Zone boundary from Ancon through to La Boca has been authorized. The work will be done by municipal prisoners. The road runs through private property, the necessary right of way having been granted to the Commission without any cost.

PANAMA RAILROAD COMPANY

TIME TABLE No. 1

IN EFFECT MARCH 1st, 1908

SOUTH BOUND			Distance from Colon	MAIN LINE	Distance from Panama	NORTH BOUND			
No. 7 Pass.	No. 5 Pass.	No. 3 Pass.		*S Stop* *F Flag Station*		No. 2 Pass.	No. 4 Pass.	No. 6 Pass.	No. 8 Pass.
Daily	Daily	Daily		STATIONS		Daily	Daily	Daily	Daily
Leave P. M.	Leave A. M.	Leave A. M.	Miles		Miles	Arrive A. M.	Arrive P. M.	Arrive P. M.	Arrive P. M.
4.35	10.30	5.30	00	† COLON	47.58	9.05	1.00	3.50	8.00
s4.37	s 10.33	s5.32	0.42	Cristobal	47.16	s9.03	s 12.57	s3.47	s7.57
s4.43	f10.37	s5.38	1 90	Mount Hope	45,68	s 8.58	12.53	3.42	s7.52
f4.48	10.43	f5.44	4.52	Mindi	43 06	f 8.50	f 12.46	f 3.35	f 7.45
s4.55	s 10.50	s5.50	7.08	Gatun	40.50	s8.43	s 12.40	s3.30	s 7.40
4 56	10 51	5.51	7.20	† Gatun (cabin)	40 38	8.40	12.37	3.26	7.36
f5.03	f11.00	5.58	10.68	Lion Hill	36 90	8.33	f 12.30	3.19	f 7.29
f5.08	f11.06	6.03	12.75	Ahorca Lagarto	34.83	8.27	f 12.24	3 13	f 7.22
s5.15	s 11.13	s6.10	15.52	† Bohio	32 06	s8.20	s 12.17	s3.05	s7.15
s5.23	s 11.22	6.18	18.75	† Frijoles	28.83	s8.10	f 12.08	2.58	s7.06
s5.31	s 11.31	s6.26	21.62	Tabernilla	25.96	s8.03	P. M. s 11.58	s2.50	s6.58
5 32	11.32	6 27	21.86	† Tabernilla (cabin)	25.72	8 02	11.56	2.49	6.57
5.35	11.35	6.30	22.84	Barbacoas	24.74	8.00	11.54	2.47	6.55
s5.37	s 11.37	s6.32	23.56	San Pablo	24.02	s7.58	s 11.52	s 2.46	s 6.53
5.38	11.38	6.33	24.00	† San Pablo (cabin)	23.58	7.57	11.51	2.45	6.52
f5.40	f 11.40	6 35	24.57	Bailamonos	23.01	7.54	f 11.48	2.43	f 6.50
s5.45	s 11.45	s6.40	26.02	† Mamei	21.56	s7.50	s 11.45	2.40	s6.47
5.49	11.50	6.45	28.22	† Gorgona (cabin)	19 36	7.42	11.38	2.33	6.38
s5.53	s 11.53	s6.49	28 53	† Gorgona	19.05	s7.41	s 11.37	s2.32	s6.37
s5.58	s 11.58	s6.54	29.90	† Matachin	17.68	s7.36	s 11.32	2.27	s6.32
6 00	P. M. 12 01	6.56	30.70	† Bas Obispo (cabin)	16.88	7.33	11.28	2.24	6.28
s6.03	s 12.03	s6.59	31.26	Bas Obispo	16.32	s7.32	s 11.27	s2.23	s6.27
6 05	12 05	7.01	31 98	† Bridge 52 (cabin)	15 60	7 29	11.24	2.20	6 24
s6.09	s 12.09	s7.05	32.83	Las Cascadas	14.75	s7.26	s 11.20	s2.17	s6.21
6 11	12 11	7.07	33 49	† White House (cabin)	14.09	7 22	11.17	2 13	6.17
s6.17	s 12 17	s7.14	35.18	† Empire	12.40	s7.17	s 11.13	s2.10	s6.14
s6.22	s 12.22	s7.19	36.18	Culebra	11.40	s7.10	11.08	s2.00	s6.10
6.23	12 23	7.20	36.27	† Culebra (cabin)	11.31	7.09	11.06	1.59	6 09
6.30	12.30	7.26	39.04	Cucaracha	8 54	7.00	10.57	1.51	5.57
s6.32	s 12.32	s7.28	39.78	Paraiso	7.80	s6.58	f 10.56	1.50	f5.56
s6.37	s 12.38	s7.31	40.72	Pedro Miguel	6.86	s6.54	s 10.52	s1.48	s5.52
6.38	12.39	7.32	41.09	† Pedro Miguel (cabin)	6.49	6.52	10.51	1.46	5.50
s6.42	s 12 43	s7.35	42.08	† Miraflores (cabin)	5.50	s6.50	s 10.48	f1.44	s5.48
s6.50	s 12.50	s7.40	44.53	† Corozal	3.03	s6.43	s 10.40	s1.38	s5.40
6.55	12.56	7.45	46.75	† La Boca Junct.	0.83	6.38	10.33	1.32	5.33
7.00	1.00	7.50	47.58	† PANAMA	00	6.35	10.30	1.30	5.30
P. M. Arrive	P. M. Arrive	A. M. Arrive		† *Telegraph Stations*		A. M. Leave	A. M. Leave	P. M. Leave	P. M. Leave

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon.

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Mrs. C. L. MacPherson. Chief Clerk.
W. G. Comber. Division Engineer, La Boca
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E. P. Thompson, Chief Clerk.
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Sydney B. Williamson, Division Engineer. Corozal.
E. A. LeMay, Chief Clerk.
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Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics). Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland. Chief Clerk.
George D. Brooke, Superintendent. Motive Power and Machinery, Culebra.
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Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
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P. O. Wright, jr., Architect, Culebra
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Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.
Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

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H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman I. Gudger Deputy Collector Ancon.
George R. Shanton, Chief of Police, Ancon
D. E. McDonald, Chief Clerk.
C. E. Weidman. Chief, Fire Department. Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge. Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

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Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra
S. C. Klauber, Chief Clerk.
J M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department

John Burke, Manager, Cristobal.
P. T. Murphy, Asst. Manager, Cristobal.

The following steamers have recently arrived at La Boca: March 10, *California*, from Valparaiso; March 12, *Quito*, from Guayaquil. Departures were: March 7, *Denderah*, for Central American ports; March 10, *Aconcagua*, for Valparaiso; March 11, *Ecuador*, for Guayaquil; March 12, *City of Sidney*, for San Francisco, and March 14, *Minerva*, for Portland, Ore.

The Empire basket-ball team defeated the Gorgona team at basket-ball on Saturday evening, March 14, by the score of 55 to 13.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Prinz Joachim	H.-A'	Saturday	Mch. 14
Advance	P. R.R.	Tuesday	Mch. 17
Sarnia	H.-A	Saturday	Mch. 21
Tagus	R.-M	Saturday	Mch. 21
Panama	P. R R.	Monday	Mch. 23
Allianca	P. R.R.	Saturday	Mch. 28
Prinz Aug. Wilhelm	H.-A	Saturday	Mch. 28
Finance	P. R.R.	Thursday	April 2
Siberia	H.-A	Saturday	April 4
Magdalena	R.-M	Saturday	April 4
Colon	P. R R.	Tuesday	April 7
Prinz Joachim	H.-A	Saturday	April 11
Advance	P. R.R.	Monday	April 13
Panama	P. R.R.	Saturday	April 18
Sarnia	H.-A	Saturday	April 18
Orinoco	R.-M	Saturday	April 18
Allianca	P. R.R.	Thursday	April 23
Prinz Aug. Wilhelm	H.-A	Saturday	April 25
Finance	P. R.R.	Tuesday	April 28

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Finance	P. R R.	Friday	Mch. 20
Prinz Sigismund	H.-A	Tuesday	Mch. 24
Colon	P. R.R.	Wednesdap	Mch. 25
Magdalena	R.-M	Wednesday	Mch. 25
Advance	P. R.R.	Monday	Mch. 30
Prinz Joachim	H.-A	Tuesday	Mch. 31
Panama	P. R.R.	Sunday	April 5
Pr. Eitel Friedrich	H.-A	Tuesday	April 7
Orinoco	R.-M	Wednesday	April 8
Allianca	P. R.R.	Friday	April 10
Prinz Aug. Wilhelm	H.-A.	Tuesday	April 14
Finance	P. R.R.	Wednesday	April 15
Colon	P. R.R.	Monday	April 20
Prinz Sigismund	H.-A	Tuesday	April 21
Atrato	R.-M	Wednesday	April 22
Advance	P. R.R.	Sunday	April 26
Prinz Joachim	H.-A	Tuesday	April 28
Panama	P. R.R.	Friday	May 1
Pr. Eitel Friedrich	H.-A	Tuesday	May 5

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Tagus	R.-M	Tuesday	Mch. 31
Magdalena	R.-M	Tuesday	April 14
Orinoco	R.-M	Tuesday	April 28

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company despatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Asian*, about March 24; *William Cliff*, about April 14, and *Floridian*, April 26.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, March 18, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Alleier, Martin
Aubrey, Mrs. Jack
Barnes, Meade C.
Barton, R. C. (pkge)
Bell, Miss Iris
Brent, Richard D.
Brown, Edward A.
Brown, Wm.
Brown, Jack
Bruner, Harry E.
Ceville, Oges
Crawford, Jas.
Crouch, Walter E.
Drefun, Samy
Droedge, Fred, jr,
Elsey, Mrs. John
English, D. Y.
Fesler, F. G.
Gibson, Mrs. Kate
Haggerty, John
Hall, Mrs. Robt. (pkge)
Kelly, Jas.
Mathieson, George
Maxwell, Miss J., c.o. J. Townsend
Menninger, Clifford (2)
McCusty, A.
McIlroy, William
Moore, Henry
Nicholson, Herbert
Nixon, Chas. A.
Noland, C. P., jr.
Oattli, Chas,
Pennington, Jas. H.
Perry, W. S.
Roberts, Fred C.
Walls, Percy C.
Waltman, W. D.
Warnbier, Ralph F.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, MARCH 25, 1908. No. 30

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies and back numbers can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed by the full name and address of the writer.

NOTES OF PROGRESS.

Reduced Chagres Division Excavation.

The total amount of excavation in the Chagres Division has been reduced more than a million and a half cubic yards from the original estimate, by two changes in the alignment of the axis of the Canal prism. One of these changes, made and approved in November, 1907, caused a reduction of 179,000 cubic yards, and the second, made and approved recently, caused a still further reduction of 1,350,050 cubic yards.

Work on the Division is advancing steadily. The office of the Division Engineer was moved into the new building, erected at Gorgona for that purpose, early in February. There are three steam shovels at work at San Pablo, four at Caimito, three at Matachin, and one at Santa Cruz. One of the shovels at Caimito will be transferred to Santa Cruz in the near future, and an additional new 91-ton shovel will shortly be put at work at San Pablo. There are three American locomotives on the main line service working in connection with track shifters and spreaders. All the other locomotives are old French material, as are all the dump cars except twenty-five new Oliver steel dump cars recently delivered.

The total excavation on the Chagres Division during February was 200,145 cubic yards, about 25 per cent. of which was rock, an average of 803 cubic yards per shovel per day. This was accomplished with three 45-ton, two 60-ton, and six 70-ton shovels, and gives an average excavation per day, per shovel-ton, of 13 08 cubic yards. The largest monthly record to date by any one shovel on the Division was made during January when shovel No. 115 excavated 29,185 cubic yards. The best monthly record in February was made by shovel No. 154,—27,800 cubic yards. The best daily record in February was made by shovel No. 101,—1,750 cubic yards, and the best daily record for a 45-ton shovel in the same month was made by shovel No. 54,—1,395 cubic yards. The best daily record that has yet been made on the Division was by shovel No. 115 on March 9, when 2,125 cubic yards were removed.

White Americans on the Isthmus.

The records of the Department of Labor, Quarters and Subsistence show the following white employes in the service on February 29, 1908: Isthmian Canal Commission, 5,083; Panama railroad, 1,091; total, 6,174. There are in the quarters of the Commission 1,275 women, and 1,067 children, a total of 2,314. This gives a grand total of 8,516.

"White employes" are those who are commonly known as "gold employes." There are about 500 of such employes of the Commission and of the Panama railroad who reside outside of Commission quarters, almost entirely in Panama and Colon. These are included in the total of 6,174. There are also about 200 women, and 200 children (not included in the above figures) who are in independent quarters in Colon or Panama.

The Department estimates that 17 per cent. of the gold employes are aliens. This estimate, however, applies particularly to the men, and only in a slight degree to the women and children in quarters. Deducting this percentage from the 6,174 white male employes makes the number of American employes 5,125, and shows the number of white Americans, including women and children on the Isthmus to be approximately 7,866.

February Material and Supplies.

The February report of the Chief of the Division of Material and Supplies shows that the total amount of material disbursed by the Division during the month was valued at $1,709,431.72, of which $1,696,992.44 was new material and $12,439.28 French stock. Seventeen ships arrived at Cristobal and three at La Boca during the month with supplies of various kinds for the Commission.

At the various storehouses of the Division, 991 cars of freight were handled, 535 loaded and 456 unloaded; 473,050 pounds of dynamite were issued, together with 13,200 feet triple tape fuse; 7,600 quintuple blasting caps and 19,100 electric exploders.

Another Rebuilt French Clapet.

The Department of Lock and Dam Construction at Cristobal has another French clapet, or hopper barge, in process of reconstruction. This boat was discovered sunk in Fox river near the bay, where she had been lying for fifteen or twenty years. She was raised about a month ago and taken to the Cristobal dry dock for reconstruction. Her engine was found to be in good condition, but a new boiler had to be installed. She is of the self-propelling dump scow type, and will prove doubly valuable because of her ability to haul other scows, in addition to handling her own load. It is expected that the work will be completed by April 1, and that the cost of labor and material will be about $20,000. A new vessel of this class would cost from $50,000 to $60,000.

Temperature of Zone Water Supplies.

In the latter part of February the temperature of water as it issued from the taps of Commission water mains at different points in the Canal Zone, as well as in Panama and Colon, and at various hours in the day, was taken by water inspectors under the supervision of the Superintendent of Public Works. The lowest temperature observed was 76 degrees at 6 a. m. at Corozal. The highest temperature was at Culebra at 1 p. m., 87 degrees The average temperature at the various points given to the nearest degree is as follows:

	Degrees.
Panama, Administration Building	84
Astor House, Central avenue	82
La Boca, House No. 51	82
Ancon, House No. 15	82
East La Boca, House No. 1	83
Corozal	80
Miraflores	82
Pedro Miguel	82
Paraiso	83
Cucuracha	86
Rio Grande	84
Culebra	84
Empire	80
Cartagenita	82
Las Cascadas	83
Bas Obispo	79
Matachin	80
Gorgona	79
Mamei	82
San Pablo	81
Tabernilla	76
Gatun	82
Mount Hope	85
Cristobal market	83
Colon No. 55 Front street	80
General average	82.36

Quarters for Employes.

The February report of the Department of Labor, Quarters and Subsistence shows that practically no new quarters were authorized during the month. Some of the new houses under construction at Cristobal and Empire were completed and some assignments made at both points. This has in a measure relieved the demand for married quarters at these places. The shifting character of the work has led to an apparent surplus of bachelor quarters at one or two points along the line. At all such places arrangements have been made to utilize the bachelor quarters as married quarters, and alterations and conversions have been made at a comparatively slight expense. Several families have been provided for in this way, and the Commission has been relieved of the necesssity of building new houses. Type 5 and type 18 bach-

NOTES OF PROGRESS

(*Continued*)

elor houses can be converted at small expense into quarters for two, four, or even eight families.

There has been a steady movement from the labor camps to the country in the vicinity of the Canal Zone. This has affected the negroes principally, though it has extended to the Europeans. At Rio Grande, which used to be the largest camp, ten houses are closed up. This is not due to any let down in the work in the vicinity, for at this point in the Culebra Division work is as active as ever, but to the tendency of the laborer to go to the bush and build his own shack.

The wisdom of the policy of the Department in refusing to recommend the construction of quarters for married West Indians or married Spaniards is justified by these results.

Gatun Steam Shovel Work.

The maximum daily output of the six steam shovels working at the Gatun lock site for the week ending March 14, was made on Wednesday, March 11, and Thursday, March 12, the same amount 9,350 cubic yards, car measurement, being excavated on both days, an average of 1,558 cubic yards per shovel. During the same period, the four shovels at the spillway excavated a total of 38,664 cubic yards, car measurement. Steam shovel No. 113 made the largest output for the week, 12,396 cubic yards, and also the largest output for any one day during the week, loading 2,520 cubic yards on March 13.

First Jury Trial in the Zone.

The first trial to be conducted in the Zone before a jury under the order of the President, issued on February 6, 1908. took place at Cristobal, on March 19th and 20th, before Judge Collins of the Circuit Court, Third Circuit, Cristobal. The person on trial was Julius Hart, a foreman on dock 11 at Cristobal, who on February 24 last, in a personal altercation with Joshua Thompson, second officer on the Panama railroad steamship *Colon*, seized a piece of board and swinging it with both hands, struck Thompson on the left side, inflicting injuries which proved fatal about thirty minutes later. The coroner's jury which was summoned at the time delivered a verdict to the effect that Thompson had met his death at the hands of Hart, as above described. Thompson was an American, and had been in the service on the *Colon* for about three and a half years. Hart is an American, and has a wife and family living in Colon.

The following officials specified in the President's order to act in such capacity served as Commissioners to draw the jury: Thomas E. Brown, jr., District Judge, Cristobal; Nelson R. Johnson, clerk, Third Judicial Circuit, and L. M. Krepleever, District Tax Collector, Cristobal. The jury, all of whom were white Americans and employes either of the Isthmian Canal Commission or the Panama Railroad Company, were the following: Isaac R. Bopps, John K. Gibson, Samuel Cooper, Duncan May, L. R. Thomas, R. Wuttke, Leander Laisol, S. W. Stephens, Wm. H. Green, Alfred B. Avery, S. C. Waterford and W. H. Farrington. The defendant entered the plea of not guilty. It was shown in the evidence for the defense, by the testimony of the physician who performed the post mortem examination of Thompson, that the direct cause of death was a rupture of the spleen caused by a blow which he had sustained at the hands of the defendant, and that owing to the enlarged and abnormal size of the spleen a slight blow from a person's hand would have been fatal. It was claimed by the defense that the blow administered by the defendant was not serious enough to have caused death under normal conditions; and that the defendant was acting in self defense. The jury were out three hours when they returned with the verdict of acquittal.

Visit of the Torpedo Flotilla.

The torpedo flotilla sailed from Panama on the evening of March 22, having been delayed on account of the non-arrival of the supply ship *Arethusa*. On Thursday evening, March 19, the Hon. Jo C. S. Blackburn gave the officers of the flotilla a reception at his house on Ancon hill, which was largely attended by people from the Zone and from the city of Panama.

A party of 300 officers and enlisted men from the second torpedo flotilla made a trip along the line of the work from La Boca to Cristobal and return on Friday, March 20, on a special train furnished by the Panama railroad. The party took lunch at the Cristobal hotel as guests of Commissioner Rousseau, who accompanied them. The discharge of 19 tons of dynamite at San Pablo was one of the incidents observed on the work. The party was entertained at the Cristobal Y. M. C. A., by General Secretary Minear and his assistants and the ladies of Cristobal, and all privileges of the building were extended to them.

In the evening the officers and men attended an entertainment given in their honor in the Metropole Theatre in Panama, when a performance was given by the Thespian Club of Empire.

Civil Service Examination.

An examination for the position of stenographer and typewriter, in the service of the Isthmian Canal Commission, will be held at Ancon, commencing at 9 a. m. Monday, April 20. Further information may be had upon application to Mr. John K. Baxter, Secretary Isthmian Civil Service Board, Ancon, Canal Zone.

OFFICIAL CIRCULARS.

Coupon Books.

DISBURSING OFFICER'S No. 31,
Empire, March 21, 1908.

TO MANAGERS OF ALL COMMISSARIES:

In cases where Coupon Books, issued by the Isthmian Canal Commission, are not signed by parties authorized, or by their authorized assistants, or where the validating stamp has been omitted, or where books are not properly signed and witnessed, same will be taken up and forwarded to the Local Auditor of the Panama railroad and, by him, to the Disbursing Officer of the Isthmian Canal Commission, for completion, but they should not be cancelled.

In cases where books, issued by the Isthmian Canal Commission are presented by others than the party to whom issued (ascertained by identification), the books will be confiscated, voided and forwarded to the Local Auditor of the Panama railroad and, by him, to the Disbursing Officer of the Isthmian Canal Commission.

Respectfully,
(Sgd.) E. J. WILLIAMS,
Disbursing Officer.
(Sgd.) HIRAM J. SLIFER,
General Manager.

Approved:
(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer,
President, Panama Railroad.

PERFORMANCE OF STEAM SHOVELS.

The subjoined table shows the record of steam shovel work in the Culebra Division for the past two years. It will be noticed that the average output per shovel for the month of February, 1908, is larger than for any previous month since work began:

Period.	Average number of steam shovels at work.	Number of working days in month.	Output per shovel CUBIC YARDS		Rainfall—Inches.		Maximum temperature in sun at Empire (degrees Fahrenheit).
			Per day.	Per month.	Empire.	Culebra.	
1906—							
January	12.83	26	363	9,430	1.28	1.19	.....
February	12.48	23	587	13,494	0.57	0.64	......
March	12.37	27	716	19,335	0.45	1.34	......
April	12.33	24	720	17,289	11.42	8.43	......
May	12.41	27	581	15,684	7.54	7.25	......
June	14.81	26	539	14,026	6.92	8.94	123
July	16.64	25	378	9,441	14.61	20.26	127
August	16.93	27	536	14,461	11.84	12.97	132
September	21.33	24	568	13,664	7.41	6.22	130
October	22.67	27	532	14,373	3.97	8.46	128
November	20.46	24	459	10,833	21.05	19.19	120
December	22.68	25	491	12,267	8.15	9.09	108
1907—							
January	31.04	26	702	18,248	0.08	0.00	104
February	39.87	23	674	15,966	0.13	0.49	108
March	43.88	25	741	18,530	0.16	0.08	105
April	44.12	26	765	19,884	0.09	0.04	110
May	31.70	26	833	21,674	6.22	7.45	118
June	38.28	25	651	16,266	13.53	14.74	118
July	43.38	26	680	17,670	9.85	9.42	118
August	39.70	27	729	19,680	11.28	11.81	120
September	38.50	24	811	19,468	10.86	11.38	123
October	37.63	27	813	21,963	15.44	15.27	123
November	41.88	24	784	18,818	10.40	6.91	123
December	42.72	25	965	24,113	1.47	2.30	124
1908—							
January	43.42	26	1,084	28,177	0.75	0.91	125
February	43.67	24	1,186	28,475	0.00	0.01	124

NOTE.—The working day for steam shovels is eight (8) hours.

PANAMA CANAL WORK.

Observations of a Recent Visitor to the Isthmus.

[*From the Manufacturers' Record, March 5.*]

Mr. John T. Hill of R. C. Hoffman & Co., Baltimore, Md., iron merchants and agents for the Maryland Steel Co., who has lately returned from the Panama Canal, in an interview with the *Manufacturers' Record*, giving his impressions of the work, says:

"Before landing we were impressed with the care the Government was exercising to prevent the entrance of disease on the Isthmus by the thorough examinations that were made by the health officers of all those who were going to land or remain even for a short time. As we proceeded across the Isthmus on every side there were evidences of a thorough study of sanitary and of well-organized plans for the preservation of the health of those engaged in the work. This was strikingly manifested by the absence of cesspools, the cutting down and burning of tropical brush, the thorough screening of the buildings by wire gauze, the distillation or filtration of the water, the thorough inspection of the food, the systematic disposal of sewage and garbage; in fact, nothing seemed to have been left undone that would tend to prevent disease and get rid of the mosquito. This same attention to detail was also marked in the hospital work, the buildings for this work being well located, with delightful surroundings and the very best practice prevailing.

"In the housing and caring for the multitude engaged on the work the same systematic methods prevail. Comfortable houses are provided for the heads of departments, engineers, clerks and skilled mechanics most of whom are Americans. Their homes are well located, neatly built and nicely furnished, and are provided with electric lights and plenty of pure water. These houses are divided into two classes—married men's quarters and bachelor quarters.

The social features are also given attention, in all of the larger towns and settlements there being Commission club buildings, strictly up to date with their gymnasiums, reading rooms, etc., together with halls for the different benevolent orders and clubs.

"The comfort and health of the army of laborers, white and black, are also considered. These are grouped in comfortable sleeping quarters, with proper arrangements for cleanliness, etc. The laborers' kitchens are remarkably clean, and the food dispensed all carefully inspected by the sanitary board, and as far as possible native cooks are provided for each nationality.

"Our attention was also called to the splendid water and sewerage systems of both Panama and Colon, likewise their well-paved streets. While belonging to the Panamanian Government, these cities are under the supervision of the Commission in all matters pertaining to health and sanitation.

"Regarding the work of cutting the Canal, we were struck with immensity of it and the grand way in which it was being done. While about 30,000 men are employed in all of the departments, including the railroad, about 19,000 or 20,000 are engaged in the excavation and construction work, and there was an *esprit de corps* on the part of those in all departments of the work that was truly delightful and a friendly rivalry between the different divisions as to which was doing the best work that was refreshing and made you proud of them.

"During the twenty or more years of the French régime about 80,000,000 cubic yards of dirt was removed, and since the Americans assumed control about 25,000,000 cubic yards have been taken out, most of which was during the past eighteen months.

"All of the excavated material has to be carried from 1 to 15 miles, and there are engaged in the service something over 300 engines and about 3,000 cars. From 320 to 350 trainloads of dirt, with cars of 80,000 pounds capacity, are hauled a day. We saw the dumps at Gatun, La Boca and Tabernilla, and were impressed with the speed with which the trains of big Lidgerwood cars were unloaded and levelled. After a train was run in by a little shifting the unloader was placed at one end, the cable stretched and attached to the plow on the other, and in a very few minutes the train of 16 cars of about 20 yards each was unloaded and pulled out. The spreader or leveler was then pushed out, and in a short time everything was ready for the next train. These operations from time to time are followed by the track shifters, which move the tracks to the edge of the fill in short order. Everything worked like clockwork, and was interesting in the extreme.

"At Gatun the big fill for the new location of the Panama railroad attracts attention, as it is about 95 feet high and is being pushed vigorously. At this place we found six shovels at work excavating for the locks, which are to be immense affairs with gates weighing over 1,000,000 pounds each. A little further on there were shovels at work cutting the spillway, which is to connect with the old channel of the Chagres river. Work is also progressing on the main Canal from Gatun to deep water.

"As stated above, one is impressed with the immensity of the work, and has a feeling of pardonable pride when he sees the skill, energy and spirit with which it is being pushed ahead by those in charge, and all of whom are our own American people."

A Correction.

THE CANAL RECORD:

Permit me, as one of the two engineers that brought the boat out to this country, which is about to be rebuilt at La Boca, to correct a slight error in your article "A Larger Taboga Boat" which appeared in THE CANAL RECORD of March 4.

We left the shipyard of Messrs. Palmer, Yarrow on Tyne, England, on Saturday, July 16, 1887, not 1885 as stated in the RECORD, with a crew of 13 men, calling at Madeira, St. Vincent, Pernambuco, Montevideo, Punta Arenas, Coronel, Callao and Panama.

JAMES N. COCKETT.

Gorgona, March 10.

The steamship *Sehome* sailed from Holquaim, Wash., on March 20, with a cargo of 809,000 feet B. M. lumber for the Isthmian Canal Commission.

NEW YORK BARGE CANAL.

Figures of the Excavation Down to January 1, 1908.

Work on the New York Barge Canal was begun in May, 1905, and the total amount of material removed between that date and December, 1907, is shown in the attached table, which embraces the aggregate of work under 16 separate contracts, operations under five of which were in progress at the close of 1905; under nine at the close of 1906, and under 16 at the close of 1907.

It will be noted from the table that the maximum excavation since the commencement of operations was in August, 1907, when 690,326 cubic yards of material, in all, were removed, of which 605,196 cubic yards were classified as earth, and 85,130 cubic yards as rock.

Date.	Classification of material.		Total excavation.
	Earth.	Rock.	
1905	*cu. yds.*	*cu. yds.*	*cu. yds.*
May	6,890	6,282	13,172
June	31,705	2,253	33,958
July	54,065	5,705	59,770
August	108,090	10,013	118,103
September	120,610	12,200	132,810
October	145,345	20,836	166,181
November	65,161	51,265	116,426
December	40,076	36,180	76,256
Total, 1905.	571,942	144,734	716,676
1906			
January	26,707	41,776	68,483
February	27,158	23,956	51,114
March	28,694	26,064	54,758
April	25,131	22,712	47,843
May	76,775	33,114	109,889
June	98,080	28,164	126,244
July	86,669	24,176	110,845
August	114,158	37,440	151,598
September	129,944	41,867	171,811
October	174,896	40,292	215,188
November	248,156	41,936	290,092
December	45,816	17,024	62,840
Total, 1906.	1,082,184	378,521	1,460,705
1907			
January	5,202	10,873	16,075
February	1,386	14,573	15,959
March	12,517	28,099	40,616
April	196,802	31,801	228,603
May	390,116	43,229	433,345
June	446,050	44,942	490,992
July	544,557	88,280	632,837
August	605,196	85,130	690,326
September	529,210	53,354	582,564
October	564,922	73,455	638,377
November	515,866	56,833	572,699
December	113,107	44,959	158,066
Total, 1907,	3,924,931	575,528	4,500,459

Improved Order of Red Men.

THE CANAL RECORD:

Resolution adopted by the Improved Order of Red Men, Chiriqui Tribe No. 1, Culebra.

Be it resolved, That any member of this tribe, not owing to the tribe for dues, fines or funeral assessments an amount equal to three months dues, the time for payment of same having elapsed, who shall be drawn for and shall serve as a juror for the Government of the Canal Zone, shall receive from the Wampum Belt of this tribe $2 for each day of such jury service, provided a statement from the court establishes the fact of such service, this resolution being operative only so long as the member shall receive no more for each day's jury service than the legal juror fee of $2 from the Government of the Canal Zone.

E. M. FOSTER,
Chief of Records,

Culebra, March 9.

The steamship *Kiora* sailed from Gibbstown, N. J., on March 19, with a cargo of dynamite for the Isthmian Canal Commission.

CANAL LABORERS.

Attitude of the Commission Toward Them.

The attitude of the Isthmian Canal Commission toward the laborers in its employ was defined recently in a letter from the Chairman and Chief Engineer to a representative of a foreign government who had asked for information upon the subject. Appended are the main points of this letter:

I beg to direct your attention to the fact that no formal contract is entered into between the Isthmian Canal Commission, representing the Government of the United States and the laborer. Such a contract, if made, would on its face be unequal; one party being a responsible Government, abundantly able to fulfill its obligations, and the other party an irresponsible laborer, from whom no penalty could be exacted in the event of his failure or refusal to perform his part of the contract.

The Commission, in the announcement to which you refer as a "contract," states the "conditions under which workmen who desire to go to work on the Panama Canal will be admitted;" and it has been and is the purpose of the Commission to faithfully fulfill each promise therein made.

One of the promises reads:

"It is calculated that the Canal work will continue from six to eight years, and in consequence the workmen will have occupation during such time as is suitable to them, for the acceptance of this employ does not impose upon them the necessity of staying a fixed time."

The Commission does not, therefore, require the laborer to remain a specified time, and it also assures him work at the rate of pay named and under the other conditions stated. With the acceptance of these conditions on the part of the laborer it is incumbent upon him to perform his duties faithfully, to the best of his ability, and to observe the regulations which have been adopted by the Commission for the conduct of the work. If a laborer refuses to obey the orders of his foreman; if he shirks his duties, is lazy or unwilling to work; if he is an agitator and engenders discontent among his co-laborers; or if he voluntarily, without good reason, quits the work upon which he has been engaged: These or similar causes are sufficient to absolve the Commission of any promise to continue his employment.

It is recognized that in such a large body of laborers real or fancied causes of complaint are unavoidable at times, even under the favorable conditions which obtain on the Canal Zone. Neither, on the other hand, is it expected that all who are employed will prove desirable workmen.

The Commission endeavors to give proper attention to reasonable complaints, and satisfaction wherever possible. If it should undertake to provide laborers with other employment because of some pretext they are dissatisfied with their present work, or to reemploy men who have been discharged for good and suficient reasons, and whose continued presence is detrimental to the work, it would result in complete disorganization. Such a condition would delay the construction of the Canal, and it is the duty of the Commission to guard against it by proper measures to maintain the discipline of the force.

In several cases to which you recently called attention, investigations developed that the men were discharged for either refusing to perform the duties assigned them or because they were professional agitators. By their action they were inciting discontent and impairing the usefulness of their fellow laborers. It is respectfully submitted that under these circumstances the men were properly discharged and that the action was fully justified.

I wish to assure you that every effort has been exerted by the Commission to provide for the comfort and welfare of laborers. The conditions under which the men are employed are most generous, and investigation will prove that they are satisfied and contented. Where men have been suspended or dismissed, careful inquiry has shown that, with hardly an exception, their own actions have been the cause, and that some disciplinary measure was required for the general good of the work.

Employment of Zone Convicts.

GOVERNMENT OF THE CANAL ZONE,
ISTHMUS OF PANAMA.

To the Warden and Deputy Wardens of the Penitentiary of the Canal Zone:

WHEREAS, convicts sentenced by the several Circuit Courts of the Canal Zone upon conviction of felonies are by law compelled to be sentenced to the penitentiary of said Zone at hard labor, and

WHEREAS, the number of such convicts at present in said penitentiary so sentenced is great and ever increasing, and it is becoming impossible to put them at work near or adjacent to such penitentiary, and

WHEREAS, it is advisable to put said convicts at hard labor at such places as may be deemed most practicable, which places may often be too remote from the penitentiary building to permit of the transportation backward and forward of such convicts each day;

Now therefore, by the power vested in me, I hereby authorize and empower you to convey and transport said convicts, or such number thereof as may be desired, to any place or places within the Canal Zone where it will be convenient and safe for them to work and there put them at hard labor in execution of their sentences, and whenever such place or places at which they or any number of them, are so put to work, are too remote from said penitentiary to conveniently return with them each night you are hereby directed to provide, or cause to be provided, a comfortable and convenient place for their safekeeping while so engaged at such work, ever maintaining the strictest precaution to prevent and preclude the escape of said convicts while thus temporarily removed from said penitentiary.

Dated this 16th day of March, A.D., 1908.

JO C. S. BLACKBURN,
Head of Department of Civil Administration.

The convicts in the penitentiary at Culebra, by virtue of the above order, will be used in the construction of the highway between Gatun and Mt. Hope reservoir, work on which was begun about the middle of February by the district prisoners at Cristobal.

The steamship *Otta* sailed from Fernandina, Fla., on March 21, with a cargo of 2,800,000 feet B. M. lumber for the Isthmian Canal Commission and Panama Railroad Company.

PANAMA WATER SUPPLY.

Some Recent Official Correspondence.

ISTHMIAN CANAL COMMISSION,
Washington Office, Feb. 26, 1908.

The Chairman, Isthmian Canal Commission, Culebra, C. Z.

Sir: Referring to previous correspondence, I have the honor to enclose herewith, for your information the copy of a letter, dated February 25, 1908, from the Acting Secretary of State to the Secretary of War, enclosing a copy of a dispatch from the American Minister at Panama (copy also enclosed) relative to the character of the water supply by the Rio Grande aqueduct to the City of Panama, from which it appears that the conditions complained of by the Panamanian authorities have practically disappeared.

Very respectfully,
(Sgd.) H. F. HODGES,
Lieut.-Col. Corps of Engineers, U. S. Army, Chief of Office.

DEPARTMENT OF STATE,
Washington, Feb. 25, 1908.

*The Honorable,
The Secretary of War.*

Sir: Referring to your letter of the 14th ultimo, relative to the character of the water supplied by the Rio Grande aqueduct to the City of Panama, I have the honor to enclose herewith copy of a dispatch from the American Minister at that Capital from which it would appear that the conditions complained of have practically disappeared.

I have the honor to be, Sir,
Your obedient servant,
(Sgd.) ROBERT BACON,
Acting Secretary.

AMERICAN LEGATION,
Panama, Feb. 8, 1908.

*To the Hon. Elihu Root,
Secretary of State,
Washington, D. C.*

Sir: Referring to Department's Instructions No. 81 (file No. 10,288–1) of January 22 last, I have the honor to advise the Department of a conversation recently had with the President, Doctor Amador, regarding the character of water furnished by the Rio Grande aqueduct. I was making a social call at the Palace when the President took occasion to say that he had been carefully examining the water supplied to the Palace and had found it very good; that the disagreeable odor and yellow color hitherto so objectionable, had almost entirely disappeared, that he drank the water, found it palatable and without subsequent ill effects.

I think the Secretary of War would be interested to know of the change in the President's opinion regarding the character of the water supplied the City of Panama from the Rio Grande aqueduct, against which, so many complaints have been made.

I have the honor to be, Sir,
Your obedient servant,
H. G. SQUIERS.

There were 419 marriage licenses issued by the Department of Civil Administration during the period from June 1, 1907 to February 29, 1908, divided among the three judicial circuits as follows: First Judicial Circuit, Ancon, 32; Second Judicial Circuit, Empire, 213; Third Judicial Circuit, Cristobal, 174.

SOCIAL LIFE OF THE ZONE.

Cristobal Woman's Club Entertains Massachusetts Club Woman.

Mrs. Katherine E. Flagg, treasurer of the Massachusetts State Federation of Women and ex-president of the Brockton Woman's Club, was tendered a reception by the Cristobal Woman's Club on Tuesday afternoon, March 17. Mrs. Flagg, who was on the Isthmus for two days only, spent one day in Panama and the second was devoted to the examination of club work and conditions in the Zone with Mrs. Lorin C. Collins, president of the Cristobal club.

The club rooms were decorated with flags and flowers for the reception and there was a large attendance. At the invitation of the president, Mrs. Flagg gave an informal address, touching upon club work and the benefits to be derived from federation work, one of which, she said, was unification of committees and consequent strength of the clubs thus affiliated. Messages from Mrs. May Alden Ward, president of the Massachusetts State Federation, from the Daughters of Vermont, and from Mrs. Fannie King, president of the Sorosis Club, were brought by Mrs. Flagg. There is no doubt, Mrs. Flagg assured her hearers, that special action will be taken on the matter of admitting the Zone Federation to the General Federation at the biennial meeting in Boston. All the women's organizations in the States are watching these Zone clubs with interest, and their progress and healthful growth has been a source of gratification and surprise to many who were skeptical concerning the movement in the beginning. At the close of Mrs. Flagg's address tea was served and later at the request of the guests the president of the club called upon Mrs. E. Lewis Baker who gave a résumé of the work of the club for the year.

Mrs. Elizabeth W. Miner, the mother of Mrs. Flagg, accompanied her. They left on the *Oroya* on Tuesday afternoon for Trinidad and Barbados, where they will spend a week, making the return voyage to New York directly from there. A number of other passengers from the *Oroya* were guests of the club for the afternoon, including Mrs. Robert H. Cook of New York, Mrs. James Rockwell of Havana, Cuba, Mrs. H. W. Chester of Park Ridge, Ill., and Mrs. Pascal Pratt Beals of Buffalo. There was a large attendance of club members.

The Ancon club met March 18 in the ball room of the Tivoli Hotel when the following program was given under the department of literature: Miss Genevive Russell gave a talk on her experiences in Japan where she spent some months as nurse during the Russo-Japanese war; Mrs. Henry Ropes Trask read a paper on "Russia at Peace;" Mrs. Robert William Fenn read extracts from a letter from China giving description of some of the customs of the Far East, and Madame Le Prince read extracts from a letter dealing with thirteenth century Japanese art. Tea was served and an informal reception followed the program.

The Educational department under Mrs. Ruggles had a called meeting at the residence of the chairman, March 20, when a number of important matters were taken under consideration.

The March meeting of the Ancon Art Society took place at the residence of Mrs. R. W. Fenn, Panama, on the evening of the 24th. The chairman of the society, Madame S. Le Prince, sailed on the following day on the *Colon* for a short business trip to the States.

The Culebra Woman's Club had its regular meeting March 19, the president in the chair. There was a good attendance. An interesting program was given, consisting of a paper on the San Francisco earthquake, by Dr. Hezadiah Crabtree, in which she gave her personal experiences of her escape and her work in the improvised hospitals and camps during the period following the "quake." Later, tea was served, and a short business meeting held, during which matters of importance were taken up. The euchre party is being arranged at the residence of Mrs. George Brooke; provision will be made for about eighty players, the halls and the veranda will be lighted with Japanese lanterns and the residence will be decorated for the occasion.

Mrs. Mary Thompson Newton, Dr. Hezadiah Crabtree and Miss Beattie were elected honorary members of the club.

The Las Cascadas Woman's Club had its regular meeting March 19, the president in the chair. Mr. David C. O'Conner, Superintendent of Schools, gave an address on the "School System in the Canal Zone" which included a review of the school work from the opening of the first Zone school to the present time. The report from the recent "Social" was read by the chairman of the entertainment committee; the proceeds of the entertainment amounted to nearly $30, which sum will be devoted to a specific philanthropic work in which the club is interested.

The quarterly election of officers occupied the business meeting of the Gorgona Woman's Club March 19. Mrs. S. L. Calvit was elected president; Mrs. J. M. Swain, vice-president; Mrs. D. E. Hayes, secretary, and Mrs. M. McConaughey, treasurer. The club feels greatly the loss of Mrs. H. W. Sykes who sailed for the States on the *Allianca* March 15, owing to the death of her husband. Mrs. Sykes was chairman of the art deparment and has been an active member of the club from the beginning of movement.

The Pedro Miguel club had a most successful evening, March 20, when the "Dixie" entertainment was given. The decorating committee had transformed the club room into a small grove by the means of large ferns and giant palms; at one end being a shanty where a group of negroes were gathered about. The program included old favorite songs, "Old Kentucky Home," "Take Me Back to Dixie," "Old Black Joe," and others. Those taking part were Mrs. Waters, Mrs. Barnes, Mrs. Pease, Mrs. Vacher and Mrs. Whittle, the club members being assisted by the Messrs. Pease, Henderson, Whittle, Vacher and Waters with Mrs. Brooking at the piano. At the close of the program refreshments were served and dancing completed the pleasant occasion.

On Friday evening, March 20, the school children of Culebra gave an "Orange Bazaar" for the benefit of the school library. The entertainment took place in the Commission club house which was crowded with the children, their parents and friends; a large number of bachelors were also present. Fancy articles were sold as well as fruits, pineapples and orchids which the boys had gathered in the jungle. Ice cream, cake, sandwiches and candy formed a part of the refreshments and were sold at good prices. The young people realized a good sum for their library.

A dance, given by the bachelors of Corozal, March 21, in the Commission hotel, was greatly enjoyed. Several old fashioned dances were included in the program. Card tables were provided for the older guests.

PERSONAL.

Sir John Rodger, Governor of the British Crown colony of the Gold Coast in Western Africa, who spent several days upon the Isthmus early in February, sailed for England a few days after returning to the United States. A dispatch from London reports him as arriving there loud in praise of the work of the Panama Canal, saying that the engineering and sanitation features of the enterprise especially impressed him.

Mrs. Hiram J. Slifer and three children sailed from Cristobal on the *Finance* March 20, for a visit of several months in the States.

Texas Club.

The Canal Record:

The Texas Club of Gorgona held their regular monthly meeting at the home of Mr. W. F. Morrison. The following officers were elected: president, W. F. Morrison; secretary, Mrs. Zoe M. Swain; treasurer, Mrs. W. F. Morrison, press reporter, Mrs. S. E. Calvit. The meeting was then adjourned and a jolly good time spent, after which the club was served with refreshments by the hostess, Mrs. Morrison.

Mrs. S. E. Calvit,
Press Reporter.

Gorgona, March 22.

Rebekah Club.

The Canal Record:

The Isthmian Canal Rebekah Club No. 1 meets every Wednesday evening at 7.30 o'clock in the club hall at Gorgona. All are invited to attend.

Mrs. S. E. Calvit,
Secretary.

Gorgona, March 22.

Regular Army and Navy Union.

The Canal Record:

The Regular Army and Navy Union of the United States of America, Gen. Henry W. Lawton Garrison No. 40, Cristobal, C. Z., will hold their regular meeting at Cristobal, C. Z, building No. 1 (Courtroom,) on the second and fourth Fridays each month at 8 p. m.

All former soldiers and sailors are invited to join the organization.

Wm. M. Ridpath,
Adjt and Q M.

Cristobal, March 20.

A new post-office has been authorized at Miraflores and house No. 51 is now being repaired for that purpose. It will be a money order office and will be opened as soon as the building is made ready. This increases the number of post-offices in the Zone to 18.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

REPORT FOR FEBRUARY, 1908.

Total membership	1,506
Total number of bowling games	5,188
Average per day	205
Total number of pool and billiard games	13,473
Average per day	543
Total income from soda fountain	$1,254.05
Average per day	$43.65
Number of different men using gymnasium	315
Number of men enrolled in systematic gynasium class work	120
Total attendance of men using gymnasium	913
Average per day	38
Number enrolled in chess and checker clubs	90
Number enrolled in glee clubs	42
Number enrolled in dramatic and minstrel clubs	40
Number enrolled in camera clubs	6
Number enrolled in orchestras	12
Number enrolled in Bible clubs	89
Number enrolled in educational classes	86
Spanish	69
Mechanial drawing	6
English grammar	5
Wireless telegraphy	6
Number of members of library	400
Total number of books withdrawn	1,014
Number of Sunday meetings	6
Average attendance	73
Number of educational, practical and travel lectures	2
Average attendance	142
Number of imported entertainments	10
Average attendance	184
Number of local entertainments	5
Average attendance	259
Number of functions outside of Association management	18
Average attendance	117
Number of afternoons for women	28
Average attendance	17
Number of evening functions to which women were invited	34
Average attendance of women	25
Number of committees	30
Different men on committees	150
Number of men called on in hospitals	89
Number of letters written at public tables	4,540
Average per day	158
Total attendance at buildings	40,059
Average attendance per day	1,381

The concert company consisting of Edwin Shonert, pianist; Earl Pfouts, violinist and Madame Cecilia Niles, soprano, have just concluded a series of entertainments before the Young Men's Christian Associations, and have been engaged for the following return engagements: Cristobal, Thursday evening, March 26; Gorgona, Friday evening, March 27; Culebra, Sunday afternoon, March 29, at 3.30. The Sunday concert at Culebra is free to all, regardless of Y. M. C. A. membership. A special train will leave Empire for Culebra at 3 o'clock and return at 5 o'clock. The concert company will sail for New York on the *Advance* on Monday, March 30.

CRISTOBAL.

The Cristobal Y. M. C. A. entertained about 300 enlisted men from the Second Torpedo Flotilla on Friday afternoon. The house was "open" to the men in every sense of the word. They engaged in billiards, pool, bowling, small games and other regular features of the club house. Several hundred letters and souvenir post cards were written. One of the most enjoyable features was half an hour's singing of familiar songs. Mrs. Aileen Butler Flynn sang several soprano solos that were much appreciated. About a dozen women served fruit punch and cigars.

A course of ten popular lectures on "First Aid to the Injured" is being delivered by Dr. A. J. Orenstein of Colon hospital. This course of lectures is intended to be preliminary to an educational class in this subject

The Sunday club announces the following program of addresses to be given Sunday afternoons at 3.15.

March 29—"The Price of a Man," by Mr. H. L. Stuntz, Local Auditor of the P. R. R.

April 5—"Three Elements of the Christian Life," by the Ven. Archdeacon Bryan of the Episcopal Church.

April 12—"Things Fundamental," by Mr. A. B. Minear, General Secretary, Y. M. C. A., Canal Zone.

EMPIRE.

There will be a missionary meeting under the auspices of the Empire Christian League at the club house on Sunday evening, March 29. An attractive program has been arranged for the occasion.

A fencing class has been organized and meets every Wednesday evening. A class in wrestling is being organized and all members interested are requested to send in their names as soon as possible.

Great interest is being shown in the local bowling contest between six teams and the pool tournament of eighteen entries that is now in progress. The following men have entered the pool tournament: Messrs. Becker, Kennedy, Evans, Porter, Earle, Anderson, McGimsey, Windsor, Haywood, Sine, Thomas, Davies, Moeller, McKeever, Watts, Sawtelle, Hall and Cleary. A billiard tournament will be started within the next few days. Gold and silver medals will be awarded the winners in both tournaments.

Empire defeated Culebra at bowling on Wednesday evening, March 18, by a score of 2 to 1.

The Machine Shop team defeated the Master Mechanics Office team at bowling on Thursday evening, March 19, by a score of 2 to 1.

CULEBRA.

Two weeks ago fifteen boys from the Culebra Y. M. C. A. made an all-day trip up the coast to Porto Bello through the courtesy of Maj. Sibert, and a very enjoyable day was spent. Luncheon was eaten in the old Spanish fort, not far from the American settlement. After the fort had been thoroughly investigated, a short swim ended the afternoon's fun. Maj. Jadwin and Messrs Gourlie, Freeman and Goodman accompanied the boys.

Last Saturday the Ancon Juniors defeated the Culebra Juniors in a baseball game at Ancon by the score of 14 to 4. Following the game, both teams were the guests of Mrs. J. G. Holcombe. There are now three teams among the boys of the Zone—one each at Empire, Ancon and Culebra; and it is hoped that two more teams will soon be ready to play.

Bowling averages are being taken this week in order to ascertain the makeup of the boys' bowling team; recently one of the boys rolled five games over 140, and one succeeded in making 212.

The Thespian Club of Empire gave their minstrel performance on Thursday evening, and pleased a large audience.

A very successful bazaar was held by the school children of Culebra in the Commission club building Friday evening, March 20, under the leadership of the teachers. Fancy articles, cakes, fruit, flowers and refreshments were sold. The proceeds will be used to purchase a school library.

Two moving-picture shows have been given at Culebra recently, and were very popular. A third will be given Friday evening.

Unclaimed Packages.

The following is a list of packages that have been forwarded from New York to Isthmian Canal Commission and Panama railroad employes, and that are waiting to be claimed at the freight house at Colon. Applications of claimants should be made through the freight agent, P. E. Cruchley. The owners of these packages will have to make application for free customs entry in connection with Circular No. 85, or in the alternative, pay duty to the Panama Government customs on the value of the contents of the packages, before delivery can be effected.

	Charges to collect
Way-bill No. 185—C. Vincent, Pedro Miguel, 1 box iron lasts, *ex Advance*; February 27, 1908	$3 00
Way-bill No. 177—W. J. Ergenzinger, Empire, 5 cases church goods, *ex Panama*; February 5, 1908	8.01
Way-bill No. 177—T. E. L. Lipsey, Culebra, 1 box groceries, *ex Panama*: February 5, 1908	1.00
Way-bill No. 177—Ed. A. Edwards, Cristobal, 1 case books, *ex Panama*; February 5, 1908	free
Way-bill No. 189—Frank Pearson, Cristobal, 1 box hardware, *ex Allianca*; March 9, 1908	3.50
Way-bill No. 187—J. P. Avis, Culebra, 1 dress-suit case, *ex Panama*; March 2, 1908	1 00
Way-bill No. 153—Manuel Diez, Panama, 1 package, *ex Finance*; December 26, 1907	1.00
Way-bill No. 187—C. G. Letts, Colon, 1 package, *ex Panama*; March 2, 1908	1.00
Way-bill No. 153—G. H. Beldon, Cristobal, 1 package books, *ex Finance*; December 26, 1907	3 25
Way-bill No. 159—John H. Guinther, Cristobal, 1 piece canvas, *ex Advance*; January 6, 1908	1.00
Way-bill No. 153—H. T. Yiernan, Gorgona, 1 package, *ex Finance*; December 26, 1907	1.00
Way-bill No. 189—Wm. Woodward, Pedro Miguel, 1 case P. M. figures and 1 bundle poles, *ex Allianca*; March 9, 1908	3.99
Way-bill No. 189—Isaiah Shirlev, Ancon, 1 box drugs, *ex Allianca*; March 9, 1908	1.00
Way-bill No. 89—J. H. Higgins, Cristobal. 2 cases picture machinery, *ex Colon*; June 29, 1907	3.00
Way-bill No. 165—Joseph N. Hinds, Empire, 1 box, *ex Dunottar Castle*; January 15, 1908	1.00
Way-bill No. 165—Has: Vaughn (or Vaugber), Culebra, 1 box, *ex Dunottar Castle*; January 15, 1908	1.00
Way-bill No. 179—Cephas Hamlin, Corozal, 1 box, *ex Allianca*; January 13, 1908	3.00
Way-bill No. 146—M. C. Benson, Bas Obispo, 1 crate machines, *ex Advance*; December 9, 1907	3.00
Way-bill No. 189—J. E. Patterson, Ancon, 3 crates picture frames, *ex Allianca*; March 9, 1908	2.25
Way-bill No. 111—S. G. M., Cristobal, 1 box hardware, *ex Advance*; August 25, 1907	1.00
Way-bill No. 187—C. B. (Chas. Brown), Gorgona, 2 cases and 1 crate phonograph goods, *ex Panama*; March 2, 1908	3.53
Way-bill No. 177—J. A. Shanhussey (or Shaughnessy), Empire, 3 packages glassware, *ex Panama*; February 5, 1908	3.26
Way-bill No. 185—Mrs. McFarland (or McFarlane, Culebra, 1 case electrical goods, *ex Advance*; February 27, 1908.	3.00
Way-bill No. 185—J. O, Bennett, Colon, 1 box organ, *ex Advance*; February 27, 1908	3 00
Way-bill 189—J. A. Clarke, Ancon, 1 box lamps, *ex Allianca*; March 9, 1908	3.00
Way-bill No. 189—E. M. Coolsby, Empire, 4 packages household goods, *ex Allianca*; March 9, 1908	9 25
Way-bill No. 189—A. H. McFarlane, Ancon, 5 packages household goods, *ex Allianca*; March 9, 1908	18.60
Way-bill No. 189—A. P. McCulloch, Gatun, 1 package, *ex Allianca*; March 9, 1908	1.00
No. 7,321—J. M. Chumacero (or Chumacriro), Colon, 1 parcel, *ex Dunottar Castle*; November 24, 1907	prepaid
No. 7,232—J. W. Foulks, Colon, 1 parcel, *ex Dunottar Castle*; September 30, 1907	prepaid
No. 7451—W. B. Houghwant, Colon, 1 parcel, *ex Advance*; February 1, 1908	prepaid

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, March 25, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Boivin, Emile
Berfen, Samy
DeGrummond, Raymond
French, Chas.
Kimmel, Fred
Lester, J. Wallace
Lewis, A. M.
Maknight, Jas.
Oyster, W. M.
Parker, Ross M.
Purcell, Mrs. Eliz.
Reidy, Miss M. G.
Ruckert, H. E.
Troxell, Marcellus

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending March 24:

		Price. CTS
FRESH MEATS.		
Beef—Sirloin roast	per lb	25
Rump roast	do	25
Porterhouse	do	25
Rib-roast, short-cut, (not under 3½ pounds	do	18
Rib-roast, second cut	do	15
Chuck-roast	do	12
Soup	do	6
Stew	do	10
Corned	do	10, 12 14
Suet	do	6
Steaks—Sirloin	do	25
Porterhouse	do	25
Rump	do	25
Round	do	14
Veal—Cutlets	do	21
Short-cut chops	do	20
Loin	do	13
Entire forequarters	do	9
For stewing	do	9
Mutton—Entire forequarters	do	9
Short-cut chops	do	18
Leg	do	14
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	28
Legs	do	18
Pork—Cuts	do	20
MISCELLANEOUS.		
Livers—Calf	each...	60
Sausage—Pork	per lb...	16
Bologna	do	15
Sweet bread—Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues	per lb...	12
Ox tongues	each...	90
POULTRY AND GAME.		
Chickens, dressed (milk-fed),	each...	†1.55
Ducks, fatted (fancy)	do	1.20
Ducks, dressed	do	90
Turkeys	per lb...	25
Broilers (chicken frys)	each...	90
Squabs	do	35
Eggs, fresh	per doz...	35
Geese (10 lbs.)	each...	2.45
CURED MEATS AND LARD.		
Bacon—Strips	per lb...	23
English breakfast, sliced..	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45
DAIRY PRODUCTS.		
Butter—prints, prime quality	per lb...	40
Cheese—Cream, Phila	each...	22
Roquefort	per lb...	45
Young America	do	22
Swiss	do	30
Gouda	do	30
McLaren's	jar...	10, 15
FRUITS AND VEGETABLES.		
Tangerines	each...	2
Oranges	per doz...	10
Grape Fruit	each...	2½
Cranberries	per lb...	10
Lemons	per doz...	15
Beets	per lb...	5
Limes	per doz...	12
Parsnips	per lb...	6½
Celery	bunch...	22
White potatoes	per lb...	3
Cabbage	do	2½
Onions	per lb...	3½
Sauer kraut	do	3½
Lettuce	do	15
Radishes	do	6
Cucumbers	per lb...	28
Sweet potatoes	do	2½
Turnips, yellow and white	do	3½

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* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return o bottle.*

§ *Sold only from Cold Storage and not from Commissaries.*

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	*New Price.* CTS.
Tins strawberry, 2s, C. Bros		22	25
Tins assorted jams, 1s, C. Bros		10	13
Tins Pearl barley, 5s..		36	38
Tins flour, 25s		1 25	1.42
Flour, ½-barrels		3.60	3.67
T. O. C. butter, 1s	tin	42	45
T. O. C. butter, 2s	do	79	86
T. O. C. butter, 5s	do	1 86	2.05

NEW ARTICLES

		Price. CTS.
Navy bacon, tins, 5s	tin...	1.08
Jars, Liebig's extract, 2-oz	jar...	35
Face powder, stock No. 41,171	pks...	13
Vaseline, perfumed, white, stock No. 41,172	tin...	19
Vaseline, white, stock No. 41,173	do	13
Children's white lisle socks, stock No. 41,174	pair...	22
President suspenders, stock No. 41,175	do	37
Chimneys, No. 3, Roch. lamp, stock No. 41,176	each...	14
Chimneys, Berlin stud lamp, stock No. 41,177	do	7
Tatoo alarm clocks, stock No. 41,178	do	1.35
Blankets, single, cotton, stock No. 41,179	do	37
Blankets, Sylvian, stock No. 41,181	do	44
Hammocks, stock No. 41,183	do	2 65
Plates, dessert, Ironstone china, 7-in., stock No. 41,184	do	5
Platters, meat, 10-in., stock No. 41,185	do	7
Dinner sets, 101 pieces, blue, stock No. 41,186	set...	9.13
Dinner sets, 101 pieces, grey, stock No. 41,187	do	9.13
Pineapples, tin, 1s	tin...	12
Sponges, rubber, feather-edge, stock No. 41,343	each...	38
Razors, W. & R., stock No. 41,344	do	90
Papetrics, p634, stock No. 41,349	bottle...	35
Papetrics, p600½, stock No. 41,348	do	16
Papetrics, p562, stock No. 41,347	do	20
Shirts, cellular, mercerised, 34-in. and 36-in., No. 156, stock No. 41,353	each...	75
Shirts, cellular, mercerised, cotton, No. 156, 38-in., stock No. 41,354	do	85
Shirts, cellular mercerised, cotton, No. 156, 40-in., stock No 41,355	do	90

Isthmian Baseball League.

Scores, March 22, 1908:

At Ancon Park: Ancon, 6, Gorgona, 5 (eleven innings).

At Empire Park: Kangaroos, 5; Culebra, 1 (exhibition game).

STANDING OF THE LEAGUE.

March 23, 1908:

	Played.	*Won.*	*Lost.*	*Per cent.*
Ancon	12	10	2	833
Empire	14	11	3	786
M. P. & M	13	10	3	769
Culebra	12	6	6	500
Kangaroos	11	5	6	455
Gatun	12	1	11	083
Gorgona	12	0	12	000

To be played March 29, 1908:

At Ancon Park: M. P. & M. vs. Empire.
At Empire Park: Culebra vs. Gorgona.
At Gorgona Park: Gatun vs. Kangaroos.

The Tivoli Club.

The next dance of the Tivoli Club will be held on Saturday evening, March 28, at the Hotel Tivoli, Ancon.

There were 97 documents recorded by the Department of Civil Administration during the period from April 15, 1907 to February 29, 1908, divided among the three judicial circuits as follows: First Judicial Circuit, Ancon, 12; Second Judicial Circuit, Empire, 60; Third Judicial Circuit, Cristobal, 25.

PANAMA RAILROAD COMPANY

TIME TABLE No. 1

IN EFFECT MARCH 1st, 1908

SOUTH BOUND			Distance from Colon	MAIN LINE *S Stop* *F Flag Station*	Distance from Panama	NORTH BOUND			
No. 7 Pass.	No. 5 Pass.	No. 3 Pass.				No. 2 Pass.	No. 4 Pass.	No. 6 Pass.	No. 8 Pass.
Daily	Daily	Daily		STATIONS		Daily	Daily	Daily	Daily
Leave	Leave	Leave	Miles		Miles	Arrive	Arrive	Arrive	Arrive
P. M.	A. M.	A. M.				A. M.	P. M.	P. M.	P. M.
4.35	10.30	5.30	00	† COLON	47.58	9.05	1.00	3.50	8.00
s 4.37	s 10.33	s 5.32	0.42	Cristobal	47.16	s 9.03	s 12.57	s 3.47	s 7.57
s 4.43	f 10.37	s 5.38	1.90	Mount Hope	45,68	s 8.58	12.53	3.42	s 7.52
f 4.48	10.43	f 5.44	4.52	Mindi	43.06	f 8.50	f 12.46	f 3.35	f 7.45
s 4.55	s 10.50	s 5.50	7.08	Gatun	40.50	s 8.43	s 12.40	s 3.30	s 7.40
4.56	10 51	5.51	7.20	† Gatun (cabin)	40.38	8.40	12.37	3.26	7.36
f 5.03	f 11.00	5.58	10.68	Lion Hill	36.90	8.33	f 12.30	3.19	f 7.29
f 5.08	f 11.06	6.03	12.75	Ahorca Lagarto	34.83	8.27	f 12.24	3.13	f 7.22
s 5.15	s 11.13	s 6.10	15.52	† Bohio	32.06	s 8.20	s 12.17	s 3.05	s 7.15
s 5.23	s 11.22	6.18	18.75	† Frijoles	28.83	s 8.10	f 12.08	2.58	s 7.06
s 5.31	s 11.31	s 6.26	21.62	Tabernilla	25.96	s 8.03	P. M. s 11.58	s 2.50	s 6.58
5 32	11.32	6.27	21.86	† Tabernilla (cabin)	25.72	8.02	11.56	2.49	6.57
5.35	11.35	6.30	22.84	Barbacoas	24.74	8.00	11.54	2.47	6.55
s 5.37	s 11.37	s 6.32	23.56	San Pablo	24.02	s 7.58	s 11.52	s 2.46	s 6.53
5.38	11.38	6.33	24.00	† San Pablo (cabin)	23.58	7.57	11.51	2.45	6.52
f 5.40	f 11.40	6.35	24.57	Bailamonos	23.01	7.54	f 11.48	2.43	f 6.50
s 5.45	s 11.45	s 6.40	26.02	† Mamei	21.56	s 7.50	s 11.45	2.40	s 6.47
5.49	11.50	6.45	28.22	† Gorgona (cabin)	19.36	7.42	11.38	2.33	6.38
s 5.53	s 11.53	s 6.49	28.53	† Gorgona	19.05	s 7.41	s 11.37	s 2.32	s 6.37
s 5.58	s 11.58	s 6.54	29.90	† Matachin	17.68	s 7.36	s 11.32	2.27	s 6.32
6.00	P. M. 12 01	6.56	30.70	† Bas Obispo (cabin)	16.88	7.33	11.28	2.24	6.28
s 6.03	s 12.03	s 6.59	31.26	Bas Obispo	16.32	s 7.32	s 11.27	s 2.23	s 6.27
6.05	12.05	7.01	31.98	† Bridge 52 (cabin)	15.60	7 29	11.24	2.20	6 24
s 6.09	s 12.09	s 7.05	32.83	Las Cascadas	14.75	s 7.26	s 11.20	s 2.17	s 6.21
6.11	12.11	7.07	33.49	† White House (cabin)	14.09	7.22	11.17	2.13	6.17
s 6.17	s 12.17	s 7.14	35.18	† Empire	12.40	s 7.17	s 11.13	s 2.10	s 6.14
s 6.22	s 12.22	s 7.19	36.18	Culebra	11.40	s 7.10	11.08	s 2.00	s 6.10
6.23	12.23	7.20	36.27	† Culebra (cabin)	11.31	7.09	11.06	1.59	6.09
6.30	12.30	7.26	39.04	Cucaracha	8.54	7.00	10.57	1.51	5.57
s 6.32	s 12.32	s 7.28	39.78	Paraiso	7.80	s 6.58	f 10.56	1.50	f 5.56
s 6.37	s 12.38	s 7.31	40.72	Pedro Miguel	6.86	s 6.54	s 10.52	s 1.48	s 5.52
6.38	12.39	7.32	41.09	† Pedro Miguel (cabin)	6.49	6.52	10.51	1.46	5.50
s 6.42	s 12.43	s 7.35	42.08	† Miraflores (cabin)	5.50	s 6.50	s 10.48	f 1.44	s 5.48
s 6.50	s 12.50	s 7.40	44.55	† Corozal	3.03	s 6.43	s 10.40	s 1.38	s 5.40
6.55	12.56	7.45	46.75	† La Boca Junct.	0.83	6.38	10.33	1.32	5.33
7.00	1.00	7.50	47.58	† PANAMA	00	6.35	10.30	1.30	5.30
P. M.	P. M.	A. M.		† *Telegraph Stations*		A. M.	A. M.	P. M.	P. M.
Arrive	Arrive	Arrive				Leave	Leave	Leave	Leave

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra
Wm. Howard May, Secretary
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging Maj. D. D. Gaillard, U. S. A., Culebra
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
Capt. George M. Hoffman, U. S. A., Assistant Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk
W. G. Comber, Division Engineer, La Boca
David V. Stratton, Chief Clerk

Department of Lock and Dam Construction Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun.
Sydney B. Williamson, Division Engineer, Corozal.
G B. Strickler, Assistant Division Engineer, Corozal.
E. A. LeMay, Chief Clerk.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics) Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent. Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.

Division of Material and Supplies: W. G Tubby. Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon

Division of Map-Making and Lithography: Charles F. Bertoncini, Chief, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
Inocencio Galindo, Legal Adviser, Ancon.
David C. O'Connor, Supt. of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon
W. G. Tucker, Secretary, Colon

Commissary Department

John Burke, Manager, Cristobal.
P. T. Murphy, Asst. Manager, Cristobal.

Purchasing Department.

Headquarters, Washington, D C., U. S A.

Lieut.-Col. H. F. Hodges, U. S. A., General Purchasing Officer.
C. E. Dole, Chief-Clerk.

F. C. Nordsiek, Asst. Purchasing Agent, 24 State Street, New York City.
S E Redfern, Asst. Purchasing Agent, Custom House, New Orleans, La.
W. G. Tubby, Purchasing Agent on the Isthmus, Cristobal, Canal Zone.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Sarnia	H.-A	Saturday	Mch. 21
Tagus	R.-M	Saturday	Mch. 21
Panama	P. R. R.	Monday	Mch. 23
Alliaaca	P. R. R.	Saturday	Mch. 28
Prinz Aug. Wilhelm	H.-A	Saturday	Mch. 28
Finance	P. R. R.	Thursday	April 2
Siberia	H.-A	Saturday	April 4
Magdalena	R.-M	Saturday	April 4
Colon	P. R. R.	Tuesday	April 7
Prinz Joachim	H.-A	Saturday	April 11
Advance	P. R. R.	Monday	April 13
Panama	P. R. R.	Saturday	April 18
Sarnia	H.-A	Saturday	April 18
Orinoco	R.-M	Saturday	April 18
Allianca	P. R. R.	Thursday	April 23
Prinz Aug. Wilhelm	H.-A	Saturday	April 25
Finance	P. R. R.	Tuesday	April 28

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Colon	P. R. R.	Wednesday	Mch. 25
Magdalena	R.-M	Wednesday	Mch. 25
Advance	P. R. R.	Monday	Mch. 30
Prinz Joachim	H.-A	Tuesday	Mch. 31
Panama	P. R. R.	Sunday	April 5
Pr. Eitel Friedrich	H.-A	Tuesday	April 7
Orinoco	R.-M	Wednesday	April 8
Allianca	P. R. R.	Friday	April 10
Prinz Aug. Wilhelm	H.-A	Tuesday	April 14
Finance	P. R. R.	Wednesday	April 15
Colon	P. R. R.	Monday	April 20
Prinz Sigismund	H.-A	Tuesday	April 21
Atrato	R.-M	Wednesday	April 22
Advance	P. R. R.	Sunday	April 26
Prinz Joachim	H.-A	Tuesday	April 28
Panama	P. R. R.	Friday	May 1
Pr. Eitel Friedrich	H.-A	Tuesday	May 5

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Tagus	R.-M	Tuesday	Mch. 31
Magdalena	R.-M	Tuesday	April 14
Orinoco	R.-M	Tuesday	April 28

The Panama railroad steamships sail at 3 p.m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company despatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *William Cliff*, about April 14, and *Floridian*, April 26.

Concert.

By the I. C. C. Band at Gorgona, C. Z., Sunday, March 29, 1908, at 2:45 p. m.:

PROGRAM:

1 March	*Philadelphus*	Wiegand
2 Selection	*Chimes of Normandy*	Planquette
3 Filipino Serenade	*Sweet Idleness*	Masten
4 Waltz	*Vienna Beauties*	Zichrer
5 Selection	*Reminiscences of Scotland*	Godfrey
6 Caprice	*The Whistler and His Dog*	Pryor
7 Scherzo fantastique	*Danze des Odalisques*	Tracy
8 Overture	*French Comedy*	Keler Bela
9 Reverie	*Apple Blossoms*	Roberts
10 March	*To the Front*	Baines

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at the Hotel Tivoli, April 5.

Circular No. 337.

TO ALL CONCERNED:

Effective March 16, Mr. Chas. T. Waring is appointed Assistant Engineer in charge of Culebra Section, Division of Municipal Engineering, vice Mr. Geo. H. Ruggles, transferred.

J. G. HOLCOMBE,
Division Engineer.

Ancon, Station A, March 19.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, APRIL 1, 1908. No. 31

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies and back numbers can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

March Excavation Nearly Three and a Half Millions.

The grand total of excavation during the month of March not only passed the three-million limit, but nearly reached three and a half millions. It was 3,480,270 cubic yards. An hour and eleven minutes additional labor at the same rate of speed, would have carried the total to the three and a half million mark. The highest previous monthly total was that of February, which was 2,945,880 cubic yards, or more than half a million cubic yards less. Of the total March excavation 3,205,076 cubic yards were taken from the Canal prism—1,906,572 cubic yards by steam shovels and 1,298,504 by dredges.

From the Culebra Division 1,216,264 cubic yards were taken from the Canal prism, and 78,941 from accessory works, making a total in that division of 1,295,205 cubic yards; from the Mindi Division, all within the Canal prism, 81,850 cubic yards were removed; in the Chagres Division, 325,373 cubic yards were taken from the prism, and 4,322 from accessory works, making a total in that division of 329,695 cubic yards.

From the Gatun locks and spillway there were taken by steam shovels 357,799 cubic yards, of which all except 155,037 cubic yards were within the Canal prism; from the Miraflores locks 67,963 cubic yards were taken from the Canal prism, 5,231 from accessory works, making a total at that point of 73,194 cubic yards. The total by dredges at all points from the Canal prism was 1,298,504 cubic yards, from accessory works 31,663, making a total of 1,330,167, an increase of 220,174 cubic yards over the previous month.

Of the March total by dredges 783,281 cubic yards were taken from the La Boca Division and 546,886 cubic yards from the Colon Division.

The detailed excavation for the month is appended:

Department of Excavation and Dredging.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Culebra Division.	1,216,264	78,941	1,295,205
Mindi......	81,850	....	81,850
Chagres Division	325,373	4,322	329,695
Cardenas Hill.....	12,360	....	12,360
Total..........	1,635,847	83,263	1,719,110
Dredges—			
Colon Dredging Division...........	515,223	31,663	546,886
La Boca Dredgi'g Division..........	783,281	....	783,281
Total...........	1,298,504	31,663	1,330,167
Grand total.....	2,934,351	114,926	3,049,277

Department of Lock and Dam Construction.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Gatun locks........	202,762	....	202,762
Gatun spillway ..	....	155,037	155,037
Miraflores locks.	67,963	5,231	73,194
Total......	270,725	160,268	430,993

Total Excavation, Entire Canal.

How excavated.	In Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
By steam shov'ls	1,906,572	243,531	2,150,103
By dredges.........	1,298,504	31,663	1,330,167
Total...........	3,205,076	275,194	3,480,270

Mean rainfall along Canal (11 stations), 0.99 inches.

Figures of monthly excavation are based upon telephone reports from division engineers and are subject to slight alterations when official reports are received.

Panama Steamships to be Improved.

Two more of the steamers of the Panama Railroad Steamship Line are to undergo extensive improvements. These are the *Colon* and the *Panama*. On each of them the passenger and dining room accommodations are to be enlarged; new and improved bath and toilet rooms are to be added and new boilers are to be installed. The first of the two to be improved is the *Colon* She sailed from Cristobal on March 25. After discharging her cargo in New York she will be taken out of service. The steamship *Esperanza*, of the Ward line, has been chartered to take her place in the regular schedule. She will sail from New York on April 7 for Cristobal.

Colon Beach Improvements.

General improvements are under way on the property of the Panama Railroad Company along the beach at Colon, which will add a great deal to the attractiveness of that section of the city.

Beginning at the general offices of the Panama Railroad Company, four small houses on the beach between that point and the cable office will be removed and the beach left open. The building used as a residence by the British Vice-Consul has been moved about one hundred feet, south and east, and a new street opened. House No. 20 will be moved to a location some distance away.

The Washington hotel has been entirely cleaned and painted and the row of four residences near Christ church are being renovated and all outbuildings in the neighborhood will be removed. The old Panama railroad storehouse has been remodeled and made into quarters for eight families.

The old machine and repair shops of the Railroad Company have been torn down and the ground it occupied is being raised about three feet, by material from the Canal excavation. The site, one of the most desirable in Colon, is being made into a residence section, and all old buildings will be torn down or moved to conform to new street lines. E street, 150 feet wide, will be extended through to the beach and a double house, as quarters for the engineer of Maintenance and Construction and the Local Auditor, will be erected on the corner near the beach. A new school house has been erected near the hospital grounds and the large brick building used as quarters by railroad employes has been completely renovated. The grounds of Colon hospital will be extended about two hundred feet on the west side and a new concrete sidewalk is being laid from Christ church to the hospital gate.

Gatun Steam Shovel Work.

The maximum daily output of the seven steam shovels working at the Gatun lock site for the week ending March 21, was made on Friday, March 20, when 10,091 cubic yards, car measurement, were excavated, an average of 1,442 cubic yards per shovel. During the same period, the six shovels at the spillway excavated a total of 36,312 cubic yards, car measurement. Steam shovel No. 119 made the largest output for the week, 11,544 cubic yards, and the highest daily record for the week was made on March 19, by shovel No. 113, and March 21 by shovel No. 252, each of which removed 2,208 cubic yards.

WEST INDIAN CANAL LABORERS.

Attitude of the Commission Toward Them, and the Terms of Their Employment

In response to many inquiries, some of them from representatives of foreign governments, concerning the number of West Indian laborers at work on the Canal and the terms upon which the Commission employs such laborers, the Chairman of the Commission has issued the following statement:

"Our day labor force for the past six months, including the Panama railroad, has been as follows:

FORCE—ORDINARY LABOR.

September	23,969
October	25,836
November	25,507
December	24,195
January	25,495
February	25,965

"About 5,000 of these are Europeans, the balance from the West Indies. Our recruited importations have been as follows:

September—	West Indian	119
	European	664
		783
October—	West Indian	586
	European	164
		750
November—	West Indian	278
	European	184
		462
December—	West Indian	205
	European	226
		431
January—	West Indian	248
	European	250
		498
February—	West Indian	461
	European	......
		461

"You will note from the above that there has been a small increase and that our importations have not been in excess of this increase when you take into consideration the large number of men who left for their homes during the holidays in December and January.

"The men that we bring here from the West Indies are not charged for transportation, and when they enter our service they are absolutely free from any debts, so that the statement that we give them employment only to repay the cost of bringing them here is false.

"It is true that there is no real shortage of laborers, but it is equally true that it is necessary to bring a small number of men here monthly to take the places of those who drop out after a working period to return home for a rest and to enjoy the money that they have accumulated.

"We recognize no obligation to employ men who drift in here, and generally they are physically unfit for our work. We maintain recruiting agents in the labor centers who examine and forward those desirable, and discourage those that are unfit from independently coming here. It was in the interest of discouraging this element that the Republic of Panama was induced to issue its Decree No. 37, prohibiting the entrance of men who were not able to maintain themselves upon the Isthmus.

"It is just possible that in the cities of Colon and Panama there are numbers of idle men, but the Commission cannot assume any responsibility for these men, as they represent the class that have found their own way here and are not recruited laborers. The maximum of our force is about what it was six months ago and there is no probability of its being reduced. It is the policy of the Commission to give preference to the men that have been recruited by its own agents, and as conditions are at present, laborers who desire to come here from the West Indies on their own account should be discouraged from taking such a step."

Civil Service Examination.

An examination for the position of stenographer and typewriter, in the service of the Isthmian Canal Commission, will be held at Ancon, commencing at 9 a. m. Monday, April 20. Further information may be had upon application to Mr. John K. Baxter, Secretary Isthmian Civil Service Board, Ancon, Canal Zone.

Forty-nine Zone prisoners have been transferred from the penitentiary at Culebra to the convict camp which has been established at Brazos Brook, where they are employed at work on the new road between Mount Hope and Gatun. The work of the prisoners is very satisfactory to the Department of Municipal Engineering which has charge of the work.

The district prisoners confined at La Boca and Ancon jails are employed on the new road from the Administration Building on Ancon hill to La Boca.

CANAL EXPENDITURES.

The following table shows expenditures for Canal work, classified monthly, since July 1, 1907. The figures give only expenditures which have been located. In addition, there have been some disbursements, such as purchasing material, etc., which it will not be possible to locate to a specified account until their use has been finally determined:

Period.	Civil Administration.	Sanitation.	Construction and Engineering.	Municipal Improvements.	Plant Account.	Total.
Prior to Jul. 1 1907	$1,425,169.82	$4,572,427 93	$13,365,365.37	$4,170,717.28	$18,623,177.88	$42,156,858.28
July..	51,183.84	149,270 94	962,477.19	146,131.93	580,562.68	1,889,626.58
Aug..	67,548.53	214,018.03	1,196,803.45	192,227.75	767,153.24	2,437,751.00
Sep...	63,239.62	253,108 77	1,194,304.85	107,840 85	1,068,300.58	2,686,794.67
Oct...	53,227.97	189,196.38	1,372,311 81	123,939 88	1,131,450.91	2,870,126.95
Nov..	54,529 02	166,381 82	1,217,120.31	115,625.44	1,105,590.16	2,659,246.75
Dec..	64,903.04	213,725 16	1,369,822.79	125,420 96	591,298.02	2,365,169.97
1908						
Jan...	66,802 92	221,866.30	1,468,021.44	156,956.22	1,584,821.98	3,498,468 86
Feb..	72,514.14	174,076.77	1,523,011.72	100,700.40	889.405.82	2,759,708.85
Tot'l	$1,919,118.90	$6,154,072.10	$23,669,238.93	$5,239,560.71	$26,341,761.27	$63,323,751.91

COMMISSION ACTION.

At a meeting of the Isthmian Canal Commission on March 28, the following action was taken:

The Chairman presented a letter from the Secretary of State addressed to the Secretary of War, forwarding a dispatch from the American Minister at Panama, requesting that the transportation rates, allowed employes of the Isthmian Canal Commission and Panama Railroad Company on the steamers of the Panama Railroad Steamship Line, be extended to diplomatic and consular officers of the United States, and their families, in the Republic of Panama. Upon motion, it was

Resolved, That the regular officials of the State Department in the Republic of Panama, and the members of their immediate families, shall be given the same rates of transportation on the steamers of the Panama Railroad Steamship Line as those granted to employes of the Commission and their families, and under the same conditions.

Resolved, That the construction of a kitchen, with the necessary kitchen arrangements, be authorized for the Salvation Army rest house and food station at Cristobal, at a cost not to exceed five hundred dollars.

Resolved, That, effective March 1, 1908, the Department of Labor, Quarters and Subsistence is authorized to take over from the Panama Railroad Company the operation of the Washington hotel, as a matter of convenience and economy, all the revenue from both quarters and subsistence to accrue to the Isthmian Canal Commission and all expenses incurred in such operations to be paid out of Commission funds.

The Chairman read a letter addressed to him by the President, respecting medals to be given to all citizens of the United States who have rendered two years' satisfactory service on the Isthmus, and directing that the details of the scheme be perfected by the Commission.

Commissioner Rousseau and Smith were appointed a committee to consider the matter and make recommendations to the Commission at a subsequent meeting.

WHEREAS, In many instances men summoned to serve as jurors in criminal prosecutions in the Canal Zone, under the provisions of the Executive Order of February 6, 1908, will be employes of the Commission or Panama Railroad Company whose pay is more than two dollars per day; and

WHEREAS, It is not deemed desirable to have such employes suffer financial loss while serving as such jurors; therefore,

Be it resolved, That where employes of the Commission or Panama Railroad Company are required to do service as jurors they shall receive their regular pay as such employes together with their actual and necessary personal expenses while so serving. In computing the pay of hourly employes eight hours shall constitute a day.

In order that the principles of civil service covering employment in the United States may be applied as closely as possible to employes of the Canal Commission, and in view of the fact that the Washington office of the Commission has on file applications for employment from competent United States citizens in practically every trade and rating employed on the Isthmus,

Resolved, That hereafter no special appointments shall be requested except in special cases to be approved by the Chairman, and all appointments in the United States shall be made by the Washington office and in accordance with approved practice.

BUBONIC PLAGUE.

The Isthmus Well Guarded Against It.

The Chief Sanitary Officer of the Isthmian Canal Commission published in the Panama *Star & Herald* of Saturday, March 28, a letter to the editor of that journal setting forth the precautions which his department is enforcing against the introduction on the Isthmus of the bubonic plague from San Francisco, and from Guayaquil and other South American ports in which it has existed for the past two years. The main points in this letter are appended:

"You are apparently laboring under the impression that no measures to prevent the introduction of plague from Guayaquil are being taken. Plague, as you know, is a germ disease and this germ is very well known. It is transmitted from place to place in two general ways: First, by the introduction of a person who has the plague; and, secondly, by the introduction of rats having the plague or merchandise of various kinds which carry the organism. Quarantine measures are established on these two lines. It is known that it generally takes less than six days from the time a person is exposed to the plague until the time he begins to have the disease. This is called the incubation period of the disease. If people, then, coming from a plague-infected locality are held for six days from the time when they leave such locality, they cannot introduce the disease. If vessels coming from the plague-infected ports are so treated that the rats are killed and all fabrics likely to carry the germ of plague not allowed shipment or disinfected, then plague cannot be introduced in this way.

"Plague has been officially reported by the Marine Hospital and Public Health Service for the past four years, off and on, at the following ports on the west coast of South America: Antofagasta, Arica, Callao, Catacaos, Chepen, Chosica, Eten, Ferrenafe, Jequetepeque, Lambayeque, Lima, Matucana, Paita, Piura, San Geronimo, San Pedro, Trujillo, Pisagua, Chiclayo, and on the north, San Francisco.

"Against all of these ports plague quarantine regulations have been in effect at Panama for the past four years. The regulations are put into effect as we are notified by our agents through the Public Health Service that plague is existent. The regulations are as follows:

That all persons shall be at least six days from infected port, or seven days in special instances; if not, they are held in our quarantine station to make up the six or seven days. That no foodstuffs that are likely to harbor rats or be rat food shall be received on the ships from infected localities. That ships shall not go to the wharves of infected ports where there will be likely to receive rats. And that fabrics likely to harbor plague infection shall be disinfected before being brought aboard

"Lighters used in conveying cargo to and from ships and that might harbor or convey rats receive proper attention. In case of violation of any of these requirements the ship is disinfected at this port and the passengers and crew are held six days from time of last disinfection. All ships coming from the south have for some time been disinfected at both Callao and Guayaquil. At present these vessels are also redisinfected just before leaving Guayaquil for the purpose of killing any rats and vermin that might have gained access to the ship at that port. Cargo taken at Guayaquil is also fumigated, and none received that is unsafe in the opinion of the medical officer stationed there. This with the idea of rendering them safe. The same regulations are enforced against ships coming from San Francisco.

"On the 6th of February we were notified that plague existed at Guayaquil. We at once enforced these general plague regulations against shipping coming from Guayaquil. On February 20 the Chief Quarantine Officer wrote the following letter to the Health Officer of Buenaventura, stating the measures that were then being enforced against Guayaquil:

Dr. Mondagron, Medico de Sanidad, Buenaventura:

Sir—In answer to your cablegram of this date, asking what precautions of quarantine we are adopting against Guayaquil, would state as follows:

1. There is an officer of the United States government stationed at Guayaquil, who, through the courtesy of the Ecuadorian government, is allowed to inspect and inform us of the condition of the vessels which leave that place for Panama.

2. The vessels coming here are informed that if they arrive with certain certificates from this official they will be received with less quarantine restrictions than will be imposed if they arrive without such certificates.

Vessels arriving without any certificate from this officer, or with a certificate unsatisfactory to us, will be placed in quarantine, disinfected by sulphur, steam, and bichloride of mercury, and all the personnel be held not less than seven days from the date of the completion of this disinfection.

If, however, the vessels comply with the suggestions of this officer at Guayaquil, and take their cargo and passengers under such conditions that the chance of getting infection on board was at a minimum, and then undergo a disinfection satisfactory to him, just prior to leaving Guayaquil, they will, if they arrive with all well on board, and no other evidence of infection, not be subjected to disinfection here, and the time of the detention of the passengers will count from the date of the disinfection at Guayaquil.

Especial attention is given at Guayaquil to prevent rats getting aboard the vessels and for the destruction of such as may, in spite of our efforts, get aboard.

Certain articles of cargo are also excluded, namely: Anything which will serve as food for rats—rice, grain, potatoes, etc., or in which rats may have harbored, such as hides, etc.

The baggage, also, of passengers—especially steerage passengers—is inspected, and, if necessary, disinfected or excluded from going aboard.

A vessel complying with these suggestions receives certificate from the officer in question that these measures have been carried out to his satisfaction, and, as by so doing, she may save herself much expense and delay on arrival here, we believe she will comply with them. Should she arrive with a person sick with the plague aboard, or with dead rats, or with any other any other evidence of being infected, all the preceding work would count for nothing, and she would be regarded as an infected vessel, disinfected throughout, and, with her passengers and officers, held in quarantine to date from completion of this second disinfection.

These are the measures we have adopted for some years past against Callao and other plague-infected ports of South America; also against San Francisco and Seattle, infected ports of the United States. If it should be your desire to have the commerce for Buenaventura guarded by the same supervision as that of Panama, I will be glad to make such representation to the proper authorities, and I believe this request would be granted, as it is to the interest of all to limit the spread of this disease.

Very respectfully,
(Sgd.) FLEETWOOD GRUVER,
Acting Chief Quarantine Officer.

"I judge that you are under the impression that plague has just begun to threaten us (by reason of the outbreak at Guayaquil). As a matter of fact the conditions are about the same to-day as they have been for the past two years, as far as plague is concerned. Paita, which is only a little further south than Guayaquil, has had plague for the past four years, and we have been enforcing the plague quarantine against her for that length of time.

"I also judge that you think the proper quarantine measure is to cut off all communication with the plague infected center. No civilized nation in modern times adopts such extreme quarantine, and I, as Sanitary Officer, would not like to have it go out as my recommendation, believing that the modern quarantine, which we have on at present, and which was agreed to by representatives of all the Republics of the Western Hemisphere, is reasonably safe. It is a matter that would not affect the construction of the Canal in any way, but such a procedure would entirely abolish the commerce of the City of Panama for several years. Plague will probably continue to exists at these ports indefinitely, probably for four or five years, and if we at Panama enforce an absolute quarantine against all infected ports to the north and south of us it would mean the closing of the port of Panama. But if the Panamanian authorities wish this, and will make such request upon the Commission, I believe the Commission will direct that it be carried out. It would relieve the quarantine department of a great deal of work, and will be very easily carried into effect, and I can assure you will be done most thoroughly.

"But it is not the expectation of any quarantine that it can always prevent the introduction of disease from the outside. In the course of time plague infection is bound to get into Panama, and the only sure preventative for us on the Zone is to get the towns of Còlon and Panama in such condition that plague will not spread when introduced. This is entirely possible, and if the people of Panama and Colon will co-operate with the Sanitary Department in keeping their yards and premises clean, and destroying rats, I feel confident that our present freedom from plague will continue."

WEATHER CONDITIONS, CANAL ZONE, MARCH, 1908.

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.					Mean relative humidity.	Precipitation.			Wind.			
		Mean.	Maximum.	Date.	Minimum.	Date.		Total.	Days with .01, or more.	Average since station established.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Date.
Cristobal.	29.87	80	83	25	74	16	79	3.53	14	1.60	12,352	n.	29	5
B. Obispo.	29.71	78	90	26	64	27	82	.41	6	.25	5,002	n.w.	24	5
Ancon.....	29.79	83	96	20	69	27	74	.03	1	.87	7,205	n.w.	26	16

RECORD OF EXCAVATION SINCE AMERICAN OCCUPATION.

MONTHLY TOTALS BY CUBIC YARDS, PLACE MEASUREMENT.

BY DREDGES.

COLON.

Mos.	1905*	1906*	1907		1908	
	Outside of Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Can'l Prism
Jan		90,700		111,100	444,403	46,298
Feb		105,500		110,002	401,887	25,835
Mar		126,650		84,145	515,223	31,663
April		87,200		69,889		
May	60,700	64,875		133,847		
June		73,500	17,000	107,118		
July	58,050	69,000	104,322	5,600		
Aug	53,183	54,000	189,170	5,127		
Sep	48,837	123,540	403,842			
Oct.	48,800	111,020	409,632	5,488		
Nov	38,000	63,260	417,297	5,500		
Dec	92,250	58,400	428,053	14,782		
Totals	399,820	1,027,645	1,969,316	652,598	1,361,513	103,796

Total to April 1, 1908—5,514,688 cubic yards.
* No work done inside of Canal Prism.

LA BOCA.

Mos.	1905*	1906*	1907		1908	
	Outside of Canal Prism	Outside Canal Prism	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside Can'l Prism
Jan		95,940		94,710	460,250	
Feb		95,940		93,480	663,519	
Mar		116,820		92,319	783,281	
Apr		110,700		104,855		
May		112,340		122,157		
June	50,676	62,697	64,352	69,223		
July	41,533	98,400	108,338			
Aug	54,530	111,930	168,284			
Sep	114,308	105,780	144,625	9,350		
Oct	81,836	97,170	357,122			
Nov	71,176	92,988	365,423			
Dec	71,094	90,528	349,551			
Totals	485,153	1,191,233	1,557,695	586,094	1,907,050	

Total to April 1, 1908—5,727,225 cubic yards.
* No work done inside of Canal Prism.

Grand total by dredges to April 1, 1908—11,280.338 cubic yards, including 38,425 cubic yards at Gatun dam site in 1907.

BY STEAM SHOVELS.

GATUN.

Locks, Dams and Spillways.

Mos.	1906*	1907		1908	
	From Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan		47,539		193,567	98,588
Feb		70,177		176,291	106,506
Mar		100,151		202,762	155,037
Apr		103,459			
May		70,528			
June		71,181	3,832		
July		59,537	14,628		
Aug		78,357	26,866		
Sep		87,423	36,315		
Oct	3,055	136,777	40,236		
Nov	11,517	121,635	40,987		
Dec	12,056	160,795	69,756		
Totals	26,628	1,107,559	232,620	572,620	360,131

Total to April 1. 1908—2,299,558 cubic yards.
* No work done outside of Canal Prism.

PACIFIC DIVISION.

Locks, Dams and Spillways.

Mos.	1908		1909	
	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism
Jan		7,203		
Feb	385	38,661		
Mar	5,231	67,963		
Apr				
May				
June				
July				
Aug				
Sep				
Oct				
Nov				
Dec				
Totals	5,616	113,827		

Total to April 1, 1908—119,443 cubic yards.

CULEBRA DIVISION.

Mos.	1904	1905	1906	1907	1908
Jan		70,650	120,990	566,750	1,227,022
Feb		75,200	168,410	639,112	1,248,265
Mar		132,840	239,178	815,270	1,295,205
Apr		126,749	213,177	879,527	
May	27,556	75,935	196,209	690,365	
June	32,551	76,905	212,623	624,586	
July	31,599	78,570	159,789	770,570	
Aug	35,056	49,210	244,823	786,866	
Sep	25,220	44,085	291,452	753,468	
Oct	19,695	52,940	327,009	834,499	
Nov	28,860	60,540	221,642	790,632	
Dec	42,935	70,630	307,689	1,025,485	
Totals	243,472	914,254	2,702,991	9,177,130	3,770,492

Total to April 1, 1908—16,808,339 cubic yards.

CHAGRES DIVISION.

Mos.	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan			169,447	
Feb			200,145	
Mar			325.373	4,322
Apr				
May				
June				
July				
Aug	2,900			
Sept	21,546			
Oct	25,627			
Nov	44,044			
Dec	98,652			
Totals	192,769		694,965	4,322

Total to April 1, 1908—892,056 cubic yards.

COLON DIVISION.

Mos.	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan			62,835	
Feb			65,632	
Mar			81,850	
Apr				
May				
June				
July	731			
Aug	15,257			
Sep	28,837			
Oct	41,078			
Nov	40,003			
Dec	46,945			
Totals	172,851		210,317	

Total to April 1, 1908—383,168 cubic yards.

Grand total by steam shovels April 1, 1908—20,593,157 cu. yds., including 78,233 cu. yds. excavated at La Boca Locks and Dams in 1907, and 12,360 cu. yds. from Cardenas Hills in March, 1908.

Grand total by steam shovel and dredges to April 1, 1908—31,873,495 cubic yards.

FRENCH AND AMERICAN RECORDS.

	FEET
Highest elevation on new center line of Canal before excavation began by the French:	
At Culebra ......312 | At Bas Obispo	233
Greatest depth of excavation by the French:	
On I.C.C. Canal axis: at Culebra, 161; at Bas Obispo	148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-feet level Canal:	
At Culebra—at same point as before	111
At barrier on Contractor's Hill ..about	140
At Bas Obispo	45
Amount excavated under American control:	CUBIC YARDS
In Culebra Division (Canal prism) to April 1, 1908	16,808,339
Total excavation at all points under American control to April 1, 1908	31,873,495

	CUBIC YARDS
Total excavation by the French at all points and including diversion channel ... about	81,548,000
Total estimated excavation required April 1, 1907 for an 85-feet level canal:	
In Canal prism	101,050,000
On lock sites	7,965,000
For regulating work and diversion channel	2,150,000
Dredging in old channel, Cristobal to Gatun, to open construction channel, and at Panama, to keep channel open to La Boca	3,350,000
Total	114,515,000

"KING YARDAGE."

What He Is Doing on the Isthmus.

Samuel G. Blythe, who came to the Isthmus in February last, as the special representative of *The Saturday Evening Post* of Philadelphia, is writing for that journal a series of articles embodying his observations here. The following passages are taken from the second of these articles, published on March 21:

It is King Yardage who is doing business just now, with his sixty-nine steam shovels and his thousands of men ripping a hole across the Isthmus of Panama, where, in a few years, there will be a waterway from the Atlantic to the Pacific wide enough and deep enough for any ship that wants to use it. "Make dirt fly," said the American people. "Correct," replied the King. "I'll put wings on every spade full of it." And after you watch his operations for a time you discover he is making good.

A cubic yard and a half of dirt or stone is a two-horse wagon-load. The total excavation for the month of December, 1907, was 2,200,539 cubic yards, and for January, 1908, 2,712,568 cubic yards. The February excavation will probably equal that of January, although there are fewer working days in February, and it is expected, with any kind of luck, that the March record will be three million cubic yards. To show the exact extent of the work a few more figures are necessary. Basing calculations on the December output, a carload of dirt or rock was removed every five seconds in each working day. That means that in December material enough was removed each working day to fill a train of flat cars, of an average length of thirty feet each, thirty-three and one-third miles long, or, 5,868 cars.

Approximately, five hundred trainloads of material are taken to the dumps every working day. Three hundred and thirty trainloads are removed each day from the Culebra Cut alone. The size of the job the United States took over can be found by comparing these figures: Up to February 1, last, the Americans have excavated, all told, 25,469,054 cubic yards. The total excavation by the French, at all points, was 81,548,000 cubic yards. The total excavation required to make the Canal a reality was estimated on April 1, 1907, to be 114,515,000 cubic yards, but in the past year the Americans have whittled a good many million cubic yards off that. This is exclusive of the construction work of the locks and dams, but includes the lock excavation. The locks and dams are engineering problems that present no unusual features. At the beginning of the year the United States had spent, exclusive of the fifty millions paid to the French company and to the Republic of Panama for the Canal Zone, $56,705,865.70. Congress will appropriate, at this session, about thirty million dollars more for the coming year. There is no adequate estimate of what the ultimate cost will be, but the engineers are now talking about $300,000,000, with mental reservations. It may cost more than that. The date now set for the completion of the Canal is January 1, 1915, and it will probably be completed by that time. It took four years of heart-breaking, nerve-racking work to get the machine in shape to accomplish these results. The old French canal was of little consequence, and the old French machinery was largely useless. The Americans had to begin at the bottom, practically, and plan it all over, utilizing what they could of the French work and the French material, but forced to rebuild, to sanitize, to make conditions endurable for Americans. That work is now practically accomplished. The machine is working with about as much equipment as it can use. The labor force is about what it will be during the rest of the work, except for such changes as may be made when the excavation comes toward completion and the lock work and dam work are in progress. Barring politics and accidents, it is likely the engineers in charge will remain on the job until the Canal is open.

Old King Yardage's dominion extends from Cristobal to La Boca, from the Atlantic to the Pacific. His subjects numbered more than thirty thousand men when I was there early in February, men from all parts of the world, all of them put to it to get the most out of themselves by the remorseless demand for excavation. If any ambitious ethnologist should desire to hold a congress of races on his own hook he could get delegates on the Canal Zone from about all there are.

I watched a steam shovel working in the Culebra Cut. It was one of the smaller ones and took up at a scoop two cubic yards and a half of dirt. Every eighteen seconds that big claw grabbed almost two two-horse wagon-loads of dirt and dropped it on a flat car. It worked with the precision of a clock: out against the bank, ripping up through it, swinging over the car, dumping its load and going back for another, once every eighteen seconds. The man who ran it wasn't exerting it, for, if he had been, he could have completed each excavation and dumped the dirt every sixteen seconds. However, he was making a hole that grew larger every minute.

The man who ran the steam shovel, who had charge of the engine and manœuvred it, was an Irishman. The man on the crane, who attended to the dumping was an American. The two stokers at the engine behind were Jamaican negroes, and the six members of the "move up" crew, the men who leveled the ground where the shovel stood and placed the track so that it could move forward and keep its nose to the bank, were Sikhs from the north of India, who wore white turbans on their heads and worked like automatons, men who observe all the requirements of their religion, who throw away their food and cook it over again if the shadow of a person not of their caste falls over it, and who seemed as much in the picture as the Gallegos and the Italians who were in gangs hard by.

Nobody has kept count of the different races represented on the Isthmus, but there are more than fifty.

You can hear all these languages or dialects in a ride or a walk along the Canal line. You can see all these native customs. You can observe men from India, men from Argentine, men from British Colombia and men from Siberia hard at work—all paying tribute to King Yardage, and all pushed along by the insistent demand that every month's excavation shall be greater than that of the previous month. There are drill men, and powder men, and dumpers, and shovelers, and track men, and engineers, and trainmen, and men for every phase of the varied and tremendous activity, all on the jump, from the division superintendents to the water boys. Some of the races are more efficient than others. Some of them are not efficient at all, but inasmuch as there are two or three for every job, there is not so much loafing as might be imagined, and the efficiency of the force has been increased more than half, which is another reason why the excavation work is progressing so rapidly.

Early in February, of the sixty-nine steam shovels at work some were taking up a cubic yard and a half at a scoop, some two and a half and some five. The steam shovel is the instrument that, just now, makes that date, January 1, 1915, seem reasonably certain. They are stretched all along the line of work, with more in the Culebra Cut than elsewhere, and they are tearing great holes in the dirt and rock, loading cars so rapidly it is hard to keep count of them, and insatiably eating their way down to lowest levels. The best steam shovel men in the world are on the job, so Dolan, the head of the Steam Shoveler's Union says, and he should know.

The largest steam shovels weigh ninety-five tons. They scoop up five cubic yards at a time. When they are working well, and the steam shovel man is feeling right, they can scoop up, load and get back once every sixteen seconds Indeed, steam shovel men say they can be pushed faster than that, but once every sixteen seconds is good work. They look like gigantic elephants, nosing into the side of the hills and throwing back over their shoulders rock and dirt with an enormous trunk.

It would be easy to criticise the work, even from the viewpoint of a layman. There are plenty of flaws, no doubt. But chasing fly-specks can be left to others. The main point of it all is, the American people, through their representatives down there on the Isthmus, are digging the Panama Canal. It is but a question of time now, and the proper appropriations by Congress. There is nothing about the task that is supernatural. They can dig the channel to Gatun. That is simple enough. The locks and the dam at Gatun present no novel features of engineering. The great lake of 165 square miles that will be formed will lead out toward the Culebra Cut, and that is half done, or more, already. The locks and dam at Miraflores can be built and the channel dredged to La Boca and out to sea. They know what to do with the rivers, how to utilize and divert them. They have the new line for the railroad surveyed and completed so far as needed.

The equipment is practically at hand. The men are trained.

It is all over but the shouting, gentlemen, barring a few years of work. The Canal will be dug. That's as certain as it is that the Isthmus of Panama is there to dig it through.

Edward Arnheim, a clerk employed at Culebra, was arrested by the Canal Zone police at Cristobal on a charge of criminal libel as he was about to depart from the Canal Zone. He was tried in the Circuit Court at Empire on March 25 and found guilty. The court has not yet pronounced sentence.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Lost.

THE CANAL RECORD:

On Sunday, March 15, while on train No. 7 between Culebra and Pedro Miguel, I lost a pocketbook containing $7 in U. S. currency, several receipts and my star check No. 21,360. Will you kindly publish this for me, as I am very anxious to have returned my receipts and check. I don't expect the money, but thought possibly that the person who found the pocketbook would return the papers and check if my name and address were known.

J. McCORMICK.

Pedro Miguel, March 24.

Goethals Garrison No, 106, Army and Navy Union.

THE CANAL RECORD:

NOTICE.

The Goethals Garrison No. 106, Army and Navy Union of the United States of America, meets every Tuesday evening at 7.45, at Kangaroo Hall, Empire, C. Z. All ex-members of the United States forces are invited to join the organization.

JOHN H. CASH,
Adjt. and Q. M.

Empire, March 26.

Culebra Lodge No 3, K. of P.

THE CANAL RECORD:

"Attention, Sir Knights." Culebra Lodge No. 3 K. of P. gave their first regular informal reception and ball at their Castle Hall, Wednesday evening, March 25 Through the effort of the entertainment committee dancing, ice cream, coffee and cakes were enjoyed until a late hour by about thirty couples. The next regular entertainment is announced for April 22. All Knights, their ladies and friends are invited.

ARTHUR M. DICKEY,
Master of Exchequer

Culebra, March 26.

Culebra Sojourners Club.

THE CANAL RECORD:

At the regular meeting, held Friday March 13, 1908, the following officers were elected to serve for the ensuing six months: president, Bro. A. B. Kratz; vice-president, Bro. J. T. Woods; secretary-treasurer, Bro. W. A. Hegner.

W. A. HEGNER,
Secretary

Approved:
A. B. KRATZ,
President.

Culebra, March 28.

Paraiso Sojourners Club.

THE CANAL RECORD:

Paraiso Sojourners Club will hold a mass meeting in the new lodge hall at Paraiso, Sunday, April 5, at 2 p. m. All Master Masons are invited to be present and learn something to their interest. Refreshments will be served.

H. C. RAGSDALE,
Secretary.

Paraiso, March 31.

Episcopal Church Services.

Episcopal church services will be conducted by the Rev. George C. Eskins in Kangaroo Hall, Empire, on Sunday, April 5; morning celebration of the Holy Communion and Evensong at seven. Mr Eskins will also hold service with Communion, at the Commission hotel, Culebra, at the usual hour on the same day.

Easter Services, Ancon Roman Catholic Chapel.

Special services will be held at the Roman Catholic chapel, Ancon Hospital, at 9 a. m. on Easter Sunday, April 19. The Rev. Father Collins will preach the sermon.

Found.

A lady's gold watch. It can be obtained by applying to John Blackhurst, Panama Health Office, and proving ownership.

A pocket book containing $20, on rear seat of rear first class coach, Panama railroad train No. 3, March 27. It can be obtained by applying to J. A. Smith, Superintendent, Panama railroad, Colon, and proving ownership.

Geo. D. Trotman, a native of Bermuda, and Charles Reed, a Jamaican, who were recently tried by the Circuit Court at Empire and found guilty of forgery, were sentenced to the penitentiary, on March 24, 1908; Trotman for five years and Reed for one year.

OFFICIAL CIRCULARS.

Longevity.

HEADS OF DEPARTMENTS AND DIVISIONS:

For your information and guidance I beg to advise you of the following action taken at the meeting of the Commission held on Saturday, March 21, 1908. Upon motion it was

"*Resolved*, That the regulations in regard to longevity increases in pay, which were made effective May 1, 1907, shall hereafter apply only to American citizens.

"*Resolved further*, That this shall not be interpreted to deprive any alien employe of longevity pay already granted."

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, March 23, 1908.

Car Seals.

CIRCULAR No. 161.

A new system of car seals has been adopted by the Panama Railroad Company, and it is hereby directed that all departments of the Commission shall keep a record of every seal removed from or applied to cars, this record to show the following data:

Number and initial of car,
Number and inital of seal,
Date removed or applied,
By whom removed, or applied, and
Remarks

When cars are placed to be opened the seals must be examined carefully to ascertain if they are in good order before removing them. All cases of seals being found broken, out of order, or cars bearing seals of more than one series, must be reported promptly, by wire, to the Superintendent of the Panama Railroad Company.

GEO. W. GOETHALS,
Chairman.

Culebra, March 25, 1908.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, April 1, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Blue, J. W.
Carran, Jas. S.
Cattall, J.
Collins, Cleveland
Flynn, Ed. M.
Frazee, W. H.
Garven, John
George, Jas.
Gibson, Mrs. E. F.
Jorden, Jos.
McCusty, Wm.
McKenzie, Jonas
Mosier, W. N.
Owens, David
Price, Jos.
Rice, Mr., Timekeeper
Vuaghan, Kennard
Wilkins, Geo. H.
Waters, Albert
Wynn, John

SOCIAL LIFE OF THE ZONE.

"Panamanian Evening" of the Ancon Art Society.

The March meeting of the Ancon Art Society was held on the evening of March 25, at the residence of Mrs. Robert William Fenn, Panama, there being a good attendance. A distinctive feature of the occasion were dances given by two native girls in costume, and the rendering of native songs and instrumental music. An interesting display of needlework and dolls in the costumes of the neighboring islands attracted general attention. Native refreshments were served including the national drink made of rice. Five new members were admitted to the society, photography and bookbinding qualifying in some cases. There was an exhibit of works of members and candidates. The chairman of the society read a short paper on "Sketching by Moonlight," the subject for the month. During the absence of Madame Le Prince in America, Mrs. Fenn will act as chairman of the society.

The Pedro Miguel club held its regular business meeting March 25, the president in the chair. The library committee, Mrs. Waters, chairman, reported that following a conference with a committee of members of the Pedro Miguel Men's Club, a library has been sent for, consisting of over one hundred books and covering a fairly wide range of literature. The club will give a "Social" on April 1.

Much enthusiam was exhibited by the Cristobal women over the Shakespearian burlesque given by the club members March 18. There was a large attendance of club members and their friends, tea being served at the close of the play.

The Empire Woman's Club has arranged an interesting meeting for April 9 when the program will deal with the interests of mothers and will be in part as follows: Roll call, answer by quotation on children, "Children as Helpers in the Household." Mrs. L. P. Worrall; "Snares for Little Feet," Mrs. R. E. Ball; "The Duty of Mothers to the Public School," Mrs. E. H. Ash. Five minutes for discussion will be allowed at the close of each paper. After the program there will be an informal reception to new arrivals in Empire. All ladies are cordially invited to attend, and strangers will be especially welcomed.

The Las Cascadas club met March 26 when the guest of honor was Dr. Crabtree of Culebra, who read her interesting paper on personal experiences in the San Francisco earthquake. The president, Mrs. W. H. Stanton, presided at the meeting which was of social character. A vote of thanks was tendered the speaker at the close of her paper which was followed by an open discussion by the club members. Refreshments were served by the entertainment committee, Mrs. Drysdale, chairman, small tables being placed about the room for the purpose.

Several members of the Ancon Woman's Club met in the drawing room of the Hotel Tivoli one day last week for progressive bridge whist.

Card of Thanks.

The intimate friends of the late Mr. Maurice P. Rich desire to express their grateful thanks to all those who assisted in the services at his funeral.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week ending March 31:		*Price.*
FRESH MEATS.		CTS.
Beef—Sirloin roast	per lb	25
Rump roast	do	25
Porterhouse	do	25
Rib-roast, short-cut, (not under 3½ pounds	do	18
Rib-roast, second cut	do	15
Chuck-roast	do	12
Soup	do	6
Stew	do	10
Corned	do	10, 12 14
Suet	do	6
Steaks—Sirloin	do	25
Porterhouse	do	25
Rump	do	25
Tenderloin	do	25
Round	do	14
Veal—Cutlets	do	21
Short-cut chops	do	20
Loin	do	13
Entire forequarters	do	9
For stewing	do	9
Mutton—Entire forequarters	do	9
Short-cut chops	do	18
Leg	do	†18
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	28
Legs	do	†25
Pork—Cuts	do	20
MISCELLANEOUS.		
Livers—Calf	each...	60
Sausage—Pork	per lb...	16
Bologna	do	15
Frankfurter	do	15
Lieberwurst	do	15
Sweet bread—Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues	per lb...	24
Pigs' feet	do	†11
Ox tongues	each...	90
POULTRY AND GAME.		
Chickens, dressed (milk-fed),	each...	†1.62
Chickens, roast	do	1.15
Fowls	do	1.10
Ducks, fatted (fancy)	do	*1.15
Turkeys	per lb...	25
Broilers (chicken frys)	each...	90
Squabs	do	35
Eggs, fresh	per doz...	35
Geese (10 lbs.)	each...	2.45
CURED MEATS AND LARD.		
Bacon—Strips	per lb...	23
English breakfast, sliced..	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45
DAIRY PRODUCTS.		
Butter—prints, prime quality	per lb...	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	30
Gouda	do	30
Camembert	do	28
Pinxter's	tin...	22
Milk	quart...	**15
Buttermilk	bot...	**15
FRUITS AND VEGETABLES.		
Pineapples	each...	16
Oranges	per doz...	12
Lemons	per doz...	15
Apples	per lb...	†7
Apples, fancy table	per lb...	10
Beets	per lb...	†6
Limes	hun...	*80
Celery	bunch...	*22
White potatoes	per lb...	3
Wax beans	per lb...	25
Cabbage	do	†3
Onions	per lb ..	3½
Tomatoes	per lb...	11
Cucumbers	per lb...	28
Sweet potatoes	do	2½
Turnips, Rutabagas	per lb...	†4½
Carrots	per lb...	5½

** Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries.

NOTICE OF PRICE CHANGES.

		Old Price.	*New Price.*
		CTS.	CTS
Sago, Pearl, 5s	tin	52	38
Piper Heidsick tobacco	plug	20	10

NEW ARTICLES		*Price.*
		CTS.
Pipes, briar, stock No. 41,397	each...	26
Pipes, briar, stock No. 41,398	do	29
Pipes, briar, stock No. 41,399	*each*	31
Pipes, briar, stock No. 41,411	do	34
Beef steak and onions, ½-tins..	tin...	11
Razors, S. R D., stock No 41,525.	each...	1.10
Brushes, hair, Keep-Clean, No. 901, stock No. 41,529	do	60
Brushes, hair, Keep-Clean, No. 601, stock No. 41,531	do	38
Brushes, hair, Keep-Clean, No. 805, stock No. 41,527	do	34
Brushes, hair, Keep-Clean, No. 932, stock No. 41,528	do	34
Polish, combination, shoe, brown, stock No. 41,533	each...	9
Combs, hair, rubber, stock No. 41,532	do	16
Combs, hair, rubber, Nos. 136, 137½, stock No· 41,535	do	23
Caps, assorted sizes and colors, stock No. 41,534	do	42
Dress shields, stock No. 41,536	do	20
Dress shields, stock No. 41,537	do	22
Dress shields, stock No. 41,538	do	24
Peas, Riverside, 2s	tin...	15
Trunks, 115, 28-in., stock No. 41,545	each...	5.33
Trunks, 115, 32-in., stock No. 41,546	do	6.13
Trunks, 115, 36-in., stock No. 41,547	do	6.93
Caps, without lining, stock No. 41,549	do	25
Combs, French, horn, No. 15, stock No. 41,551	do	38
Combs, French, horn, No. 16, stock No. 41,552	do	36
Combs, French, horn, No. 17, stock No. 41,553	do	33
Raisins, R. S. Malaga, 1s	pkge...	25
Mattresses, single, fibre, stock No. 41,555	each...	4.00
Watches, Yankee, nickel, stock No. 41,613	each...	80
Watches, Triumph, silver, stock No. 41,614	do	1.30
Watches, Eclipse, ox., stock No. 41,615	do	1.15
Garters, Boston, men's, silk, stock No. 41,616	do	24
Cork screws, No. 123, stock No. 41,617	do	11
Cork screws, No. 243, stock No. 41,618	do	18

Concert.

By the I. C. C. Band at the Hotel Tivoli, Sunday, April 5, 1908, at 3 p. m.:

PROGRAM:

1 March	*Colossus of Columbia*	Alexander
2 Selection	*The Prince of Pilsen.*	Luders
3 Waltz	*Dream of Heaven*	Bauer
4 Scherzo fantastique	*Danze des Odalisques*	Tracy
5 Song for cornet	A *Dream*	Bartlett
CHAS. E. JENNINGS		
6 Selection	*Reminiscences of Scotland*	Godfrey
7 Intermezzo	*Little Kinkies*	Bendix
8 Overture	*Poet and Peasant*	Suppe
9 Descriptive	*Cavalry Charge*	Luders

Synopsis—Morning of the battle; infantry heard approaching with fife and drum; cavalry in the distance, coming nearer and nearer until they charge upon the enemy; cavalry, infantry and artillery in the melée of the battle; defeat of the enemy, pursued in the distance by the cavalry.

10 March..................*Imperial*..................Bagley

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Culebra, April 12.

PANAMA RAILROAD COMPANY

TIME TABLE No. 1

IN EFFECT MARCH 1st, 1908

SOUTH BOUND			Distance from Colon	MAIN LINE	Distance from Panama	NORTH BOUND			
No. 7 Pass.	No. 5 Pass.	No. 3 Pass.		*S Stop* *F Flag Station*		No. 2 Pass.	No. 4 Pass.	No. 6 Pass.	No. 8 Pass.
Daily	Daily	Daily		STATIONS		Daily	Daily	Daily	Daily
Leave	Leave	Leave	Miles		Miles	Arrive	Arrive	Arrive	Arrive
P. M.	A. M.	A. M.				A. M.	P. M.	P. M.	P. M.
4.35	10.30	5.30	00	† COLON	47.58	9.05	1.00	3.50	8.00
s 4.37	s 10.33	s 5.32	0.42	Cristobal	47.16	s 9.03	s 12.57	s 3.47	s 7.57
s 4.43	f 10.37	s 5.38	1.90	Mount Hope	45,68	s 8.58	12.53	3.42	s 7.52
f 4.48	10.43	f 5.44	4.52	Mindi	43.06	f 8.50	f 12.46	f 3.35	f 7.45
s 4.55	s 10.50	s 5.50	7.08	Gatun	40.50	s 8.43	s 12.40	s 3.30	s 7.40
4.56	10.51	5.51	7.20	† Gatun (cabin)	40.38	8.40	12.37	3.26	7.36
f 5.03	f 11.00	5.58	10.68	Lion Hill	36.90	8.33	f 12.30	3.19	f 7.29
f 5.08	f 11.06	6.03	12.75	Ahorca Lagarto	34.83	8.27	f 12.24	3.13	f 7.22
s 5.15	s 11.13	s 6.10	15.52	† Bohio	32.06	s 8.20	s 12.17	s 3.05	s 7.15
s 5.23	s 11.22	6.18	18.75	† Frijoles	28.83	s 8.10	f 12.08	2.58	s 7.06
s 5.31	s 11.31	s 6.26	21.62	Tabernilla	25.96	s 8.03	P. M. s 11.58	s 2.50	s 6.58
5 32	11.32	6.27	21.86	† Tabernilla (cabin)	25.72	8.02	11.56	2.49	6.57
5.35	11.35	6.30	22.84	Barbacoas	24.74	8.00	11.54	2.47	6.55
s 5.37	s 11.37	s 6.32	23.56	San Pablo	24.02	s 7.58	s 11.52	s 2.46	s 6.53
5.38	11.38	6.33	24.00	† San Pablo (cabin)	23.58	7.57	11.51	2.45	6.52
f 5.40	f 11.40	6.35	24.57	Bailamonos	23.01	7.54	f 11.48	2.43	f 6.50
s 5.45	s 11.45	s 6.40	26.02	† Mamei	21.56	s 7.50	s 11.45	2.40	s 6.47
5.49	11.50	6.45	28.22	† Gorgona (cabin)	19.36	7.42	11.38	2.33	6.38
s 5.53	s 11.53	s 6.49	28 53	† Gorgona	19.05	s 7.41	s 11.37	s 2.32	s 6.37
s 5.58	s 11.58	s 6.54	29.90	† Matachin	17.68	s 7.36	s 11.32	2.27	s 6.32
6.00	P. M. 12 01	6.56	30.70	† Bas Obispo (cabin)	16.88	7.33	11.28	2.24	6.28
s 6.03	s 12.03	s 6.59	31.26	Bas Obispo	16.32	s 7.32	s 11.27	s 2.23	s 6.27
6.05	12.05	7.01	31.98	† Bridge 52 (cabin)	15.60	7 29	11.24	2.20	6 24
s 6.09	s 12.09	s 7.05	32.83	Las Cascadas	14.75	s 7.26	s 11.20	s 2.17	s 6.21
6.11	12.11	7.07	33.49	† White House (cabin)	14.09	7.22	11.17	2.13	6.17
s 6.17	s 12.17	s 7.14	35.18	† Empire	12.40	s 7.17	s 11.13	s 2.10	s 6.14
s 6.22	s 12.22	s 7.19	36.18	Culebra	11.40	s 7.10	11.08	s 2.00	s 6.10
6.23	12.23	7.20	36.27	† Culebra (cabin)	11.31	7.09	11.06	1.59	6 09
6.30	12.30	7.26	39.04	Cucaracha	8.54	7.00	10.57	1.51	5.57
s 6.32	s 12.32	s 7.28	39.78	Paraiso	7.80	s 6.58	f 10.56	1.50	f 5.56
s 6.37	s 12.38	s 7.31	40.72	Pedro Miguel	6.86	s 6.54	s 10.52	s 1.48	s 5.52
6.38	12.39	7.32	41.09	† Pedro Miguel (cabin)	6 49	6.52	10.51	1.46	5.50
s 6.42	s 12.43	s 7.35	42.08	† Miraflores (cabin)	5.50	s 6.50	s 10.48	f 1.44	s 5.48
s 6.50	s 12.50	s 7.40	44.55	† Corozal	3.03	s 6.43	s 10.40	s 1.38	s 5.40
6.55	12.56	7.45	46.75	† La Boca Junct.	0.83	6.38	10.33	1.32	5.33
7.00	1.00	7.50	47.58	† PANAMA	00	6.35	10.30	1.30	5.30
P. M.	P. M.	A. M.		† *Telegraph Stations*		A. M.	A. M.	P. M.	P. M.
Arrive	Arrive	Arrive				Leave	Leave	Leave	Leave

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ISTHMIAN CANAL COMMISSION.

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Maj. Wm. L. Sibert, U. S. A., Culebra.
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Addison Bligh, Chief Clerk.
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C. R. Sargent, Chief Clerk.
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David C. O'Connor, Supt. of Schools, Ancon

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H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

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Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

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R. E. Wood, Assistant Manager, Culebra
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

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Wm. M. Wood, Chief Clerk

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon

Commissary Department

John Burke, Manager, Cristobal.
P. T. Murphy, Asst. Manager, Cristobal.

Purchasing Department.

Headquarters, Washington, D. C., U. S. A.
Lieut.-Col. H. F. Hodges, U. S. A., General Purchasing Officer.
C. E. Dole, Chief-Clerk.

F. C. Nordsiek, Asst. Purchasing Agent, 24 State Street, New York City.
S. E. Redfern, Asst. Purchasing Agent, Custom House, New Orleans, La.
W. G. Tubby, Purchasing Agent on the Isthmus, Cristobal, Canal Zone.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Allianca	P. R. R.	Saturday	Mch.	28
Prinz Aug. Wilhelm	H.-A.	Saturday	Mch.	28
Finance	P. R. R.	Thursday	April	2
Siberia	H.-A.	Saturday	April	4
Magdalena	R.-M.	Saturday	April	4
Colon	P. R. R.	Tuesday	April	7
Prinz Joachim	H.-A.	Saturday	April	11
Advance	P. R. R.	Monday	April	13
Panama	P. R. R.	Saturday	April	18
Sarnia	H.-A.	Saturday	April	18
Orinoco	R.-M.	Saturday	April	18
Allianca	P. R. R.	Thursday	April	23
Prinz Aug. Wilhelm	H.-A.	Saturday	April	25
Finance	P. R. R.	Tuesday	April	28

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Colon	P. R. R.	Wednesday	Mch.	25
Magdalena	R.-M.	Wednesday	Mch.	25
Panama	P. R. R.	Sunday	April	5
Pr. Eitel Friedrich	H.-A.	Tuesday	April	7
Orinoco	R.-M.	Wednesday	April	8
Allianca	P. R. R.	Friday	April	10
Prinz Aug. Wilhelm	H.-A.	Tuesday	April	14
Finance	P. R. R.	Wednesday	April	15
Colon	P. R. R.	Monday	April	20
Prinz Sigismund	H.-A.	Tuesday	April	21
Atrato	R.-M.	Wednesday	April	22
Advance	P. R. R.	Sunday	April	26
Prinz Joachim	H.-A.	Tuesday	April	28
Panama	P. R. R.	Friday	May	1
Pr. Eitel Friedrich	H.-A.	Tuesday	May	5

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Magdalena	R.-M.	Tuesday	April	14
Orinoco	R.-M.	Tuesday	April	28

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company despatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *William Cliff*, about April 14, and *Floridian*, April 26.

The following steamers have recently arrived at La Boca: March 22, *Arethusa*, from Callao; March 24, *Chile*, from Valparaiso; March 27, *Hermonthis*, from Central American ports. Departures were: March 23, *Barracouta*, for Central American ports, and *Salatis*, for South American ports; March 24, *Quito*, for Guayaquil, and *Arethusa*, for Magdalena Bay, March 27, *Indiana* and *Haldis*, for San Francisco.

Isthmian Baseball League.

Scores, March 29, 1908:

At Ancon Park: Empire, 4; M. P. & M., 1.
At Empire Park: Culebra, 1; Gorgona, 0.
At Gorgona Park: Kangaroos, 9; Gatun, 0 (by default to Kangaroos, Gatun failing to appear).

STANDING OF THE LEAGUE.

March 30, 1908:

	Played.	*Won.*	*Lost.*	*Per cent.*
Ancon	13	11	2	846
Empire	15	12	3	800
M. P. & M	14	10	4	714
Culebra	14	8	6	571
Kangaroos	14	6	8	429
Gatun	13	1	12	077
Gorgona	13	0	13	000

To be played April 5, 1908:

At Ancon Park: Ancon vs. Culebra.
At Empire Park: Kangaroos vs. M. P. & M.
At Gorgona Park: Gorgona vs. Gatun

CANAL RECORD

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The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

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Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Investigations at Gatun.

There is published in other columns of this issue of THE CANAL RECORD a description of experiments and investigations that are being made to ascertain the conditions existing in the location of the Gatun dam and to determine the best materials for use and the best method of placing them in the dam. The experiments are on an extensive scale, and include some entirely new determinations. Somewhat similar experiments were made for the work on the Wachusett Dam and Reservoir under the direction of Frederick P. Stearns, Chief Engineer of the Boston Metropolitan Water Board, and one of the Board of Consulting Engineers of the Isthmian Canal Commission.

The Gatun experiments are under the direction of C. M. Saville, who for eleven years was on the hydraulic work of the Metropolitan Works, and are undertaken in connection with the work of the Gatun Dam Division, of which William Gerig is Division Engineer, but their scope has been extended to cover similar determinations necessary at other points on the Canal work.

The Commission expects that the results of these investigations and experiments will be such that all the principal facts bearing on the Gatun dam and its foundations will be determined, thus making it possible to design and build a structure of whose stability there shall be no question.

Increased Capacity of Mount Hope Reservoir.

The elevation of the top of the dam at the Mount Hope reservoir is being raised five feet, which will give an increased capacity to the reservoir of 120,000,000 gallons, and will make the total capacity of the reservoir 585,000,000 gallons. As the average monthly water consumption from this reservoir is about forty million gallons, this increase in the capacity is equal to about a three months' supply of water and gives the Mount Hope reservoir a total water supply equal to the demand for over a year.

In connection with the filtration plant at Mount Hope a sedimentation basin is being built with a capacity of 300,000 gallons, through which the water will undergo preliminary filtration previous to passing through the filters. It is expected that this plant will be in operation by the beginning of the next rainy season.

Fresh Fruits and Vegetables.

The Commissary Department expects a supply of early fresh fruits and vegetables by the steamship *Appomattox*, of the United Fruit Company's line, which will arrive at Colon about the middle of April. As the vegetable season has opened in the States, the department expects to be able, from now on, to supply fresh vegetables in sufficient quantities to meet the demand on the Isthmus.

The season has been backward in the southern states this year. The strawberry season in Louisiana is fully a month late, and other garden truck is correspondingly delayed, or these would have reached the Isthmus some time ago. The canteloupe season will open early in May, and the peach crop a few weeks later; and from that time on it will be possible for the Commissary Department to furnish these fruits until the season closes in November.

The United Fruit Company announce that they will put on three new steamers between New Orleans and Colon, which will give a weekly, instead of a ten-day, cold-storage service, as at present. The new ships will have a large cold-storage capacity, in which supplies can be carried at varying temperatures, and will enable the Commissary Department to take advantage of all cold-storage food products that are available in the New Orleans market. It is expected that the first boat in the new service will reach here early in June.

Removal of Gatun Village.

The old native village of Gatun which is on the Chagres river opposite the present railroad station at Gatun, is being moved to a new site about two miles from the present one on the new line of the Panama railroad. This change is necessary because the village is on the site of the Gatun dam. The church and parsonage have already been taken down and moved by the Commission to the new site. The native school will also be moved by the Commission. The other houses are being taken down by the occupants or owners and placed in cars which the Commission furnishes and they will be transported at the expense of the Commission to the new location. The people will then have use of the cars for one week in order to give them time to erect their new houses.

The village has a population of about 600 and contains about 110 buildings, including the church, parsonage and about ten stores. The inhabitants of the village were notified some time ago to move their buildings but have paid no heed to the order until within the past few days when they were practically forced into action as the old site is now needed. They prefer their present location to the new one, it being on the river which they have used as their principal means of transportation. The new town will be amply provided with transportation routes, for besides being on the new line of the Panama railroad, it is connected with both the labor camp and the American village at Gatun by roads, and in the near future it will also be connected with Colon by road. It will be supplied with water and sewerage systems, advantages which the village did not possess.

Club Libraries to Be Increased.

In response to quite general demand from members for additional books, it has been decided to spend $25 a month, for six months, in the purchase of new books for each of the libraries in the four Commission Club houses, the money to be taken from the earnings of the clubs. The original libraries were bought by the Commission at $500 each.

March Revenues.

The report of the Chief of the Division of Posts, Customs and Revenues for the month of March shows the largest month's business ever done in the Zone post-offices, both in the number of money orders sold and amount of money handled. The number of orders issued was 14,306, an increase of 346 over the month of December, 1907, the largest previous record, and an increase of 1,181 over the number sold in February. The 14,306 orders were drawn for a total of $430,437.16, an increase of $2,543.06 over January, 1908, the largest previous month, and an increase of $11,696.08 over February. Of this March total of $430,437.16 no less than $306,666.63 was in orders drawn on the United States and elsewhere, and $123,770.53 in orders drawn on the Canal Zone.

The largest number of orders, 2,549, was issued at Cristobal and amounted to $71,872.43—the largest amount ever handled by the money-order department of a Canal Zone post-office. The next largest was at Empire, with 1,829, aggregating $59,659.77; Culebra was third with 1,677 orders, amounting to $46,917.81, Gorgona fourth, with 1,345 orders, aggregating

NOTES OF PROGRESS.

(Continued)

$46,525.47, and Ancon was fifth, with 1,306 orders, amounting to $32,383.74.

Postage sales for the month of March amounted to $6,331.90, and other collections for the month were as follows: Land and building rent, $1,860.30; miscellaneous bills, $1,548.75; internal revenue (tax on distillation), $354.90, and for the administrative districts of Ancon, Cristobal, Empire and Gorgona (licenses, taxes, etc.), $7,343.12. Fines and costs for the districts of Ancon, Cristobal, Empire and Gorgona amounted to $2,803.05. The water rent (Canal Zone only) for the quarter ending March 31, amounted to $796.55.

Two New Slides in the Culebra Division.

During the present dry season two slides of comparatively novel character have developed on the upper level of the Culebra Cut. The most southerly of the two is located on the west bank of the Cut at the village of New Culebra, which, it will be remembered, is built entirely upon an old French dump. This material, which had caused some little trouble previously, began three or four weeks ago to break away and slide into the Cut, until at the present time, the most distant point of the slide from the edge of the Cut is about 170 feet, and only about 35 feet from the edge of the street running through New Culebra. The total amount of material involved in the slide was about 40,000 cubic yards, about 20,000 cubic yards of which have been removed by steam shovels and carried to the dumps. Two small antiquated houses belonging to natives of the village have been undermined by this slide, and were torn down by the owners to be erected elsewhere. This slide can not extend more than 75 or 100 feet further from the Cut, as this distance marks the upper limit of the old dump which causes the slide.

The other slide is located directly opposite the village of Las Cascadas, and extends back from the edge of the Cut for a distance of about 260 feet. The amount of material involved was about 100,000 cubic yards, of which 60,000 cubic yards have already been removed and carried to the dumps. The point of rupture most distant from the Canal is now within 80 feet of the crest of the hill, which latter point experience has shown, marks the limit of all slides of this character.

The two slides just described are unusual in that they occurred during the dry season, and that the bulk of the material composing them is quite dry, especially in the case of the slide opposite Las Cascadas. The material at the bottom of the slide at the village of New Culebra is moist, but not at all wet, and in both cases the mass in motion is a superficial top covering of earth, 20 to 30 feet thick, deficient in cohesion, and comparatively dry, moving upon a gently sloping bed of much harder material which is smooth and soapy to the touch.

About noon on March 20, a blast of 19½ tons of 45 per cent. dynamite was fired in a hill in the Canal prism at Caimito. The charge was placed in 25 holes, ranging in depth from 35 feet to 90 feet, the average depth being 60 feet. The blast was a complete success, the total amount of material being broken by the shot amounting to 70,769 cubic yards.

PERFORMANCE OF STEAM SHOVELS

Monthly Records in the Five Divisions.

The subjoined tables show the monthly records of steam shovel work in the five Divisions of Canal Excavation since American occupation. It will be noticed that there has been a large increase in the average output per shovel during the period.

The working day for steam shovels is eight hours:

CULEBRA.

Period.	Average number of steam shovels at work.	Number of working days in month.	Output per shovel CUBIC YARDS		Rainfall—Inches.		Maximum temperature in sun at Empire (degrees Fahrenheit).
			Per day.	Per month.	Empire.	Culebra.	
1906—							
January	12.83	26	363	9,430	1.28	1.19	.....
February	12.48	23	587	13,494	0.57	0.64	......
March	12.37	27	716	19,335	0.45	1.34	......
April	12.33	24	720	17,289	11.42	8.43	......
May	12.41	27	581	15,684	7.54	7.25	......
June	14.81	26	539	14,026	6.92	8.94	123
July	16.64	25	378	9,441	14.61	20.26	127
August	16.93	27	536	14,461	11.84	12.97	132
September	21.33	24	568	13,664	7.41	6.22	130
October	22.67	27	532	14,373	3.97	8.46	128
November	20.46	24	459	10,833	21.05	19.19	120
December	22.68	25	491	12,267	8.15	9.09	108
1907—							
January	31.04	26	702	18,248	0.08	0.00	104
February	39.87	23	674	15,966	0.13	0.49	108
March	43.88	25	741	18,530	0.16	0.08	105
April	44.12	26	765	19,884	0.09	0.04	110
May	31.70	26	833	21,674	6.22	7.45	118
June	38.28	25	651	16,266	13.53	14.74	118
July	43.38	26	680	17,670	9.85	9.42	118
August	39.70	27	729	19,680	11.28	11.81	120
September	38.50	24	811	19,468	10.86	11.38	123
October	37.63	27	813	21,963	15.44	15.27	123
November	41.88	24	784	18,818	10.40	6.91	123
December	42.72	25	965	24,113	1.47	2.30	124
1908—							
January	43.42	26	1,084	28,177	0.75	0.91	125
February	43.67	24	1,186	28,475	0.00	0.01	124

GATUN LOCKS.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall at Gatun (inches)
1907—					
Aug	3.70	27	784	21,176	16.37
Sept	4.12	24	884	21,219	8.03
Oct	5.00	27	1,013	27,355	19.27
Nov	5.00	24	1,014	24,327	14.27
Dec	5.00	25	1,286	32,159	5 53
1908—					
Jan	5.72	26	1,302	33,840	3.18
Feb	6.01	24	1,222	29,333	1.29

CHAGRES.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall at Bohio (inches)	Rainfall at Bas Obispo (inches)
1907—						
Aug	0.15	27	716	19,333	9.10	12.20
Sept	0.92	24	976	23,420	13 63	14.71
Oct	2.22	27	428	11,544	19.00	13.62
Nov	3.00	24	612	14,681	11 38	9 85
Dec	6.12	25	645	16,120	2.88	2 26
1908—						
Jan	8.11	26	804	20.894	1.59	0.20
Feb	10.33	24	807	19,375	1 18	0 11

GATUN SPILLWAY.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall at Gatun (inches)
1907—					
July	1.33	26	423	10,998	11.12
Aug	2.00	27	498	13,433	16.37
Sept	2 00	24	757	18,158	8.03
Oct	2.00	27	745	20,118	19.27
Nov	2.00	24	854	20,494	14,27
Dec	2.00	25	1,395	34,878	5.53
1908—					
Jan	3.00	26	1,264	32,863	3.18
Feb	3.75	24	1,183	28,402	1 29

COLON.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall at Gatun (inches)
1907—					
July	1	13	56	731	11.12
Aug	2	27	283	7,629	16.37
Sept	2	24	601	14,419	8,03
Oct	2	27	761	20,539	19.27
Nov	2	24	833	20,002	14.27
Dec	2	25	939	23,473	5.53
1908—					
Jan	2	26	1,208	31,418	3.18
Feb	2	24	1,368	32,816	1.29

Lost.—A pocket book containing $20, on rear seat of rear first class coach, Panama railroad train No. 3, March 27. It can be obtained by applying to J. A. Smith, Superintendent, Panama railroad, Colon, and proving ownership.

The Division of Building Construction during the month of March, 1908, finished the construction of 52 buildings, made repairs to 138, alterations on 11, and demolished 4 old buildings. The average number of employes at work was 1,618.

ZONE QUESTIONS IN CONGRESS.

President's Power to Govern.

On March 19, the House of Representatives at Washington adopted the following resolution:

Resolved, That the President of the United States be, and he is hereby, requested to inform this House, if not incompatible with the public interests, by what authority of law he has exercised the functions of government in the Panama Canal Zone since the date of the expiration of the Fifty-eighth Congress, or by what right or authority the executive, legislative, and judicial functions in the Zone have been performed since that date.

In response to this the President has sent the following message to Congress:

"Civil government has been maintained in the Canal Zone under my direction pursuant to duty confided by treaty between the United States and Panama, concluded November 18, 1903, by which the right to maintain civil government in the Canal Zone was granted to the United States, the duty to maintain it was imposed upon the President and the means for its maintenance were from year to year expressly and specifically proposed by Congress."

Pay for Injured Canal Employe.

The Senate Committee on Interoceanic Canals agreed on March 24 to report favorably on a bill which appropriates $10,000 for Pembrook B. Bantón, an employe of the Isthmian Canal Commission, who, while in performance of duty as locomotive engineer on April 17, 1906, was injured so seriously as to be crippled for life. The Commission is without authority to grant financial relief in cases of this kind, but it called the attention of Congress to Banton's case in the winter of 1906, and at subsequent sessions of Congress, earnestly supporting a bill similar to the one now pending. No action whatever was taken. In his special message of January 31, last, quoted in the CANAL RECORD of February 19, President Roosevelt said:

"There is a special bill to which I call your attention. Secretary Taft has urgently recommended the immediate passage of a law providing compensation to employes of the government injured in the work of the Isthmian Canal, and that $100,000 be appropriated for this purpose. I earnestly hope that this will be done and that a special bill will be passed covering the case of Yardmaster Banton who was injured nearly two years ago, while doing his duty. He is now helpless to support his wife and three children."

Mr. Banton is a citizen of Iowa, and Senator Allison and Congressman Birdsell of that state have interested themselves in his case and have secured this favorable action by the Senate Committee. If the relief bill shall become a law it will establish a precedent for similar action in other cases of injury, and will make easier the task of obtaining relief.

Transfer of Zone Postal Employes.

Mr. Aiken, of South Carolina, introduced in the House of Representatives on March 26, the following bill which was referred to the Committee on Reform in the Civil Service and ordered to be printed:

A Bill to Allow Postal Employes in the Canal Zone to be Eligible for Transfer to the Postal Service in the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That after the passage of this Act every citizen of the United States who has served or who may hereafter serve as postmaster or clerk in the Canal Zone postal service for a period of not less than one year shall be entitled to transfer to the service of the Post-Office Department in the United States. Any such person so transferred shall thereafter be entitled to the same protection under the civil service laws as other clerks of the Post-Office Department, and any person when so transferred shall receive a salary of not less than two-thirds of the salary which he received in the position from which he was transferred.

If the above bill shall become a law it will affect about forty-five employes in the Division of Posts, Customs and Revenues.

Shipment of Canal Material.

Appended is the full text of the Frye Joint Resolution as it passed the Senate on March 13, in regard to the shipment of material and equipment for use in the construction of the Panama Canal. It was favorably reported to the House from the Committee on Interstate and Foreign Commerce on March 24:

Joint Resolution to Provide for the Transportation by Sea of Material and Equipment for Use in the Construction of the Panama Canal:

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That in any contract hereafter made, transportation by sea of material and equipment from the United States for use in the construction of the Panama Canal shall be restricted to vessels owned by the United States or by the Panama Railroad Company, or to vessels of the United States chartered by the United States or by the Panama Railroad Company, or to vessels of the United States tendered by the lowest responsible bidder, unless the President shall in any case deem the bids or tenders therefor to be extortionate or unreasonable: *Provided*, That this resolution shall not apply to any foreign steamship chartered by the Panama Railroad Company to take the place of any of the present fleet destroyed or undergoing repairs, after the President shall have been satisfied that a suitable vessel of the United States could not have been chartered on reasonable terms for that purpose: *And provided further*, That the Isthmian Canal Commission is hereby authorized to purchase or charter and operate vessels of the United States for the transportation of material and equipment for the use of the Canal, employes on, and mails for said Canal, whenever in the opinion of the President the public interests will be best so served: *Provided*, That this resolution shall not apply to any port of the United States between which and the Isthmus of Panama there is no vessel owned by the United States, nor by the Panama Railroad Company, nor vessel of the United States, available at any such port when needed and adequate to carry the commerce offered between such port and the Isthmus of Panama.

SEC. 2. That in every such contract the party, or parties, bidding on the same shall be authorized to submit bids to deliver said material and equipment, in the alternative, either,

First—On docks within reach of the ship's tackle at seaports of the United States named by the bidder.

Second—On docks, at the option of the bidder, at Colon or La Boca (1) in ships of American register; (2) in ships of foreign register.

British Views of Canal Work.

The latest mails bring fuller reports of the views which Sir John Rodger, Governor of the British Crown Colony of the Gold Coast in Western Africa, expressed after his return to London, concerning conditions on the Isthmus. According to these, Sir John said that he was greatly impressed with the excellence of the engineering and sanitary work on the Isthmus. All the official quarters and hospitals had been enclosed in brass wire netting for the purpose of keeping out mosquitoes, and the death rate of Panama had been reduced to something below the normal tropical rate. No case of yellow fever had occurred in the last two years. The progress of the Canal work, he said, had been remarkable. In February nearly 3,000,000 cubic yards had been excavated, and it was estimated that the Canal would be completed before 1914. Regarding sanitation, Sir John found that the information acquired which was likely to be of importance in West Africa was the design and construction of the mosquito houses which he saw at Panama, which, in his opinion, were admirably designed for the requirements of the tropics. He had secured plans and specfications of these, which he believed would be of much value in connection with the construction of buildings on the Gold Coast.

Baggage Regulations.

The General Manager of the Panama Railroad Company desires to call the attention of all travelers on the steamships of the company to the following baggage regulations:

Passengers may have their baggage checked in either direction, between Pier 57, (new) foot of West Twenty-seventh Street, North River, New York; Pier No. 11, Cristobal and any local station on the Panama railroad, on the presentation of proper transportation and payment of regular baggage tariff, excess charges and additional expense of a transfer charge of fifty (50) cents gold, for trunks and twenty-five (25) cents gold, for smaller articles.

Passengers from New York must first have their baggage examined and passed by Customs Officer at Cristobal, on arrival of steamship; after which it may be rechecked at baggage room, Pier No. 11 to any local station.

Passengers for New York holding orders on ticket agent at Colon, may check their baggage to Pier No. 11, Cristobal, where they will be required to claim it at baggage room and after securing tickets, same may be re-checked to New York.

All baggage for staterooms on steamships may be checked to Pier No. 11, Cristobal, where it must be claimed. Steamship stewards will then assist in placing such baggage in staterooms.

Gatun Steam Shovel Work.

For the week ending March 28, the seven steam shovels working at the Gatun lock site excavated a total of 56,300 cubic yards, car measurement, an average of 8,043 cubic yards per shovel. The best record was made by shovel No. 104, with 10,370 cubic yards, an average of 1,728 cubic yards per day. The maximum daily output by the same shovels during the same period was made on Friday, March 27, when 9,673 cubic yards, car measurement, were removed, an average of 1,382 cubic yards per shovel. The highest daily record for the week was made on March 28, by shovel No. 104, when 2,040 cubic yards were excavated.

During the same period the five shovels at the spillway excavated a total of 44,964 cubic yards, an average of 8,993 cubic yards per shovel. The best record for the week was made by shovel No. 113, with a total of 9,720 cubic yards, an average of 1,620 cubic yards per day. The highest daily record for the week was made by shovel No. 113, on Monday, March 23, when 2,220 cubic yards were removed.

EXPERIMENTAL WORK AT GATUN.

By Caleb Miles Saville, M. Am. Soc. C. E., Asst. Div. Engr Gatun Dam Division.

Experimental work on a large scale is now under way at a station which has been established at Gatun for the purpose of investigating the various soils and rocks which will be used in the construction of the dams and also the materials that are found in the foundations and in the portions of the ground underlying the embankments and walls to be constructed. It is expected that these experiments will show clearly the physical characteristics of the materials themselves, and demonstrate their condition when placed in embankments or when forming foundations subjected to excessive loads or heavy water pressure.

The principal investigations are:

1. Experiments with soils in a wooden tank to ascertain the slope of the water in the embankment; the amount passing through the soil; the best method of depositing soil in order to make it resist the passage of water; and the effect of a load on the embankments.

2. Experiments to determine the frictional resistance of soils and rocks to the passage of water.

3. Experiments to determine the frictional resistance of soils to pressure.

4. Wash drill and diamond drill borings.

5. Test pits in the dam location on Gatun island, the lower port of the Chagres valley, and on the hill at the spillway.

6. Experiments to determine the action of the materials under heads of water similar to that expected in the dam.

7. Determination of the best mixture of available materials for making impervious embankments and the action of these mixtures under pressure and when exposed to the action of water.

Beside the borings and soundings that are being made to investigate the material in the foundations of the dam, other investigations are under way for the purpose of developing the location and extent of the best materials from which to construct the big embankment. Thus far the returns are of a most satisfactory character, both as to quality and quantity.

(1) Experiments are being made in a water-tight wooden tank, 80 feet long, 6 feet wide and 8 feet high. In this a section of a dam is being constructed one-twelfth the size of the actual structure. Into the tank materials are being pumped under conditions similar to those that will exist in the dam itself. When completed, the experimental section will be subjected for a considerable period to water pressure and careful records kept of the rate at which water may percolate into the material. These observations will be made by means of glass gauges set up outside the tank at distances of five feet apart, and connected with perforated horizontal pipes with the interior of the embankment. In this way the slope of saturation through the embankment can be determined and the actual dam itself so designed that no water of percolation can find its way to the outer slope until it has lost all its pressure and power of damage. Several dams of various materials will probably be constructed in this tank, from time to time, in order to determine the best materials for use in the actual work.

(2) Experiments are being made in galvanized iron tanks about three feet in diameter and five feet high. In these a layer of the material to be investigated is placed and exposed to a constant head of water. Careful observations by glass gauges make it possible to determine the quantity of water that will pass through under various heads of water, and the thickness of material that will be necessary to make the embankment practically impervious.

Studies of the land slides at various points on the Isthmus are being made and experiments made with large size sliding boxes to determine the friction angle and the coefficient of friction for the various materials.

The wash drill and diamond drill investigations are on a much more extensive scale than previously undertaken, and the ground is being so thoroughly explored, and to such great depth, that it is felt that no conditions can obtain that will materially change the plans after they have once been decided upon.

On Gatun island, at a point about halfway between the old channel of the Chagres river and the French canal, an exploration pit is being excavated, which it is proposed to carry down a distance of at least 100 feet. This pit is 20 feet square, and has now reached a depth of 18 feet. As yet the materials excavated have been compact clay and sand, containing very little water, a hand pump, intermittently worked, being sufficient to drain the pit. The excavation is being carefully watched, and it is planned every 10 feet and oftener if the material changes, to make mechanical analyses and filtration determinations.

In order to determine the action of the soil and rocks when exposed to heavy water pressure, cylinders of the materials to be investigated are enveloped in strong iron tubes, varying in size from three inches to eight inches in diameter, and then the specimen is subjected to water pressure, varying from 20 pounds to 80 pounds per square inch, corresponding respectively to 46 feet and 185 feet head. Abrasion tests are being made of the several rocks found, and also experiments to determine the resisting qualities of the rocks when exposed to the eroding action of a stream of water under pressure.

Beside the ordinary information obtainable from wash and diamond drill exploration regarding the character of the underlying strata, investigations are also being made to determine the velocity of flow of the underground water. These determinations are being made by the electrical method, devised and successfully used by Professor Schlicter on the U. S. Geological Survey work. The underground water conditions are also being investigated by seepage and pumping tests.

Civil Service Examination.

An examination for the position of stenographer and typewriter, in the service of the Isthmian Canal Commission, will be held at Ancon, commencing at 9 a. m. Monday, April 20. Further information may be had upon application to Mr. John K. Baxter, Secretary Isthmian Civil Service Board, Ancon, Canal Zone.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Odd Fellows Celebration.

The Canal Record:

The anniversary of the founding of Odd Fellowship in America will be celebrated at Gorgona by appropriate exercises on Sunday, April 26, under the auspices of the of the Isthmian Canal Lodge No. 1, I. O. O. F.

All Odd Fellows and their families are invited to be present. The hour of the exercises and other details will be announced later.

C. E. Whipple,
Secretary.

Gorgona, April 2.

Independent Order of Panamanian Kangaroos, Paraiso Court No. 5.

The Canal Record:

The independent Order of Panamanian Kangaroos, Paraiso Court No. 5, gave their first social session, Saturday evening, April 4, at their hall in Paraiso.

The honorable judge, B. H. Moak, made a speech describing how the Order came to be originated and for what purposes they were organized. He then turned the affair over to the entertainment committee who certainly deserve credit for their good work.

Dancing, good music and a lunch served at the I. C. C. hotel were enjoyed by the 150 people present.

H. L. Bridges,
Clerk of the Court.

Approved: B. H. Moak,
Honorable Judge.

Paraiso, C. Z., April 6.

Masonic Club at Gatun.

The Canal Record:

The Masons of Gatun met at the club rooms on March 30, pursuant to call, and organized a Masonic club. Those present who signed their names to the membership roll were: Messrs. H. G. Schriever, Louis Talbot, Orlando W. Eggleston, H. C. Strayer, Fred. M. Baker, E. J. Neville, W. M. Sanger, R. F. Scoffern, David W. Bass, R. D. Geraty, R. W. Clyde, W. H. Kane, Harry Jacobs, S. E. Herington, Frank A. Beach, Edward Lang, Peter Helur, F. E. Shuck, C. G. Carty, John Miller, D. C. Creece, W. C. Gayer and L. S. Garske. After considerable discussion relative to matters pertaining to the government of the club, the organization was duly perfected, and the following permanent officers were elected: R. F. Scoffern, president; H. G. Schriever, vice president; W. H. Kane, secretary and treasurer. The following members were appointed a committee on by-laws: C. G. Carty, R. W. Clyde and H. G. Schriever.

After spending a very pleasant evening the meeting adjourned to meet at the call of the President.

W. H. Kane,
Secretary and Treasurer.

Gatun, April 3.

The White School Teachers' Association will hold a meeting at the Ancon school house on Saturday, April 11, at 8.30 a. m.

SOCIAL LIFE OF THE ZONE.

Zone Texans Prepare for the Celebration of San Jacinto Day.

San Jacinto Day will be celebrated by the Gorgona Texas Club with an informal reception and dance on April 21, at the Commission club house. The members of the club, about forty in number are expected to attend, and a large number of invited guests will also be present. The general Texas Club, with headquarters at Empire, which includes among its members all the Texans in the Zone, will give a stag dinner in honor of the day.

The Ancon Woman's Club held its regular business meeting April 1, the president in the chair. Action was taken upon the resignation of Miss Genevieve Russell from the office of treasurer, and the club elected Mrs. Pelham Bates to fill the vacancy. Miss Russell was also chairman of the philanthropy department, and Mrs. H. D. Reed was appointed to that position. A short program was presented by the musical department, Mrs. MacFarlane, chairman, which followed the business meeting, consisting of songs by Mrs. MacFarlane and Miss Konshaw, a piano solo by Mrs. Bowdry, and a recitation by Mrs. Charles Boxer. The club is making efforts to secure a room in which to hold dancing classes for children. Evening classes for ladies and gentlemen are also desired. The educational department has a called meeting at the residence of the chairman, April 8.

The Gorgona Woman's Club gave a reception in honor of Mrs. Louis F. La Rose, the bride of the assistant secretary and physical director of the local Y. M. C. A. The entertainment hall of the Commission club house was decorated with potted plants and hung with flags for the occasion. A musical program was given by Mrs. R. C. Goodale, Mrs. J. M. Swain, Mrs. Beetham and Mrs. Frank West. Refreshments were served and the entire informality of the occasion permitted ample opportunity for club members and their guests to extend a personal welcome to the newcomer. The club presented Mrs. La Rose with a large embroidered tea cloth. There was a very large attendance. On April 2 there was a business meeting of the club.

The Las Cascadas club held its regular business meeting April 2 with the president in the chair. The following committees were appointed to serve during the month: entertainment, Mrs. Stocchini, Mrs. Enright, Mrs. Doyle and Mrs. Naylor; visiting, Mrs. Albrecht, Mrs. Thorne and Mrs Dorson. A pleasant social hour followed the business meeting. There was a good attendance.

A feature of the meeting of the Culebra club on April 2 was a special drill in Parliamentary law, Mrs. Mary Thompson Newton being in the chair. The official title of "A Club Within a Club" was given to the occasion.

The Paraiso club at its last meeting was obliged to make some changes in its officers, owing to the removal of some of the members. Mrs. Lane, the first vice-president having resigned, the second vice-president, Mrs. Downs was moved up to that office, and Mrs. Kerslake was elected to fill the office thus vacated. The president of the club, Mrs. E. S. Waid, is at present in Costa Rica on her vacation, and the chair was taken by Mrs. Kerslake. A social meeting was held in charge of Mrs. Downs, acting president, assisted by Mrs. Proud and Mrs. Ellenwood. A feature of the afternoon was a guessing contest of "A Floral Wedding," prizes being won by Mesdames Proud, Downs and Mansberger. The club tendered a reception, on April 3, to Mrs. Mansberger, an active member of the organization, the occasion being in the double nature of a birthday party and a farewell, as Mrs. Mansberger will leave for the States in the near future.

The regular literary meeting of the Cristobal Woman's Club was held April 1. The afternoon was devoted to a discussion of the servant problem, led by Mrs. F. W. Strang, and which was participated in by other members. It was generally agreed that the payment of a uniform scale of wages, as has been largely discussed among the clubs, is neither feasible nor possible. The action of women who offer higher wages, to attract servants from other housewives, was discussed and condemned. While no definite solution of the problem was advanced, the discussion was helpful as tending to a clearer and better understanding of the situation.

There was a meeting of the Board of Managers of the Canal Zone Federation of Women's Clubs at Empire on April 4, to arrange for the quarterly meeting which will take place in that town on April 18. There will be two sessions; the business meeting, beginning at 1.30 and ending at 3.30; this will be followed by a reception given from four to six in honor of Mrs. George W. Goethals.

The business portion of the day will be devoted to the adoption of the revised bylaws of the federation, and the election of delegates to the Biennial convention of the General Federation of Women's Clubs to be held in Boston in June. The officers of the Zone Federation have been given to understand that the business relating to their organization will be taken up at the beginning of the meeting in Boston and that following this, the delegates will be seated. Four delegates and four alternates will be elected. It is therefore greatly desired that there should be a large attendance of club members. Reports of the various committees appointed at the January meeting are requested to be brought in writing, and, as on the former occasion, the presidents are requested to bring written reports of the work of their organizations in the interim.

The Ancon Amusement Association has arranged for a concert at the Metropole Theatre, Friday April 10, at 8.15 p. m., to be given by members of the Association.

Culebra Sojourners Club.

THE CANAL RECORD:

Notice to Master Masons. The regular stated meeting of the Culebra Sojourners Club will be held at the club room on Friday night, April 10, 1908, at 7.30 o'clock. Bring some matches with you and help burn some of those good aromatic Havanas that are always on hand. If you don't smoke, come anyhow, and enjoy the good fellowship of the Fraternity.

W. H. HEGNER,
Secretary.

Culebra, C. Z., April 6.

PERSONAL.

Hon. Leslie Combs, American Minister to Peru, accompanied by his family, arrived at Panama on April 6, and sailed for the United States on the following day.

Charles M. Pepper, special representative of the Department of Commerce and Labor at Washington, arrived on the Isthmus from the west coast of South America, on Saturday last, and sailed for the United States, by way of New Orleans, on Tuesday. Mr. Pepper came to the Isthmus in October last, from Colombia, and after a brief visit here went to the western coast of South America where he has been traveling till the present time. He is a high authority on the trade conditions of Central and South America, and a frequent contributor to American magazines and newspapers on various subjects pertaining to these countries. An article by him on the Suez Canal is published in *Scribner's Magazine* for April.

Mr. S. E. Redfern, Assistant Purchasing Agent of the Isthmian Canal Commission, at New Orleans, accompanied by Mrs. Redfern, spent the past ten days on the Isthmus and sailed for New Orleans on the United Fruit Company's steamer *Ellis* on April 7.

Mr. Geo. F. Halsey, foreman of printing in the Division of Material and Supplies, sailed on the *Panama*, April 5, on a ten weeks' vacation in the States.

Mrs. Corning, wife of Captain Corning of the *Panama*, who arrived in Colon March 29, will spend a short time on the Isthmus visiting friends in Cristobal.

Mrs. E. J. Williams, of Empire, sailed for the States on the *Advance*, March 30.

Mrs. Geo. M. Hoffman and family, of Gorgona, arrived on the *Allianca* on April 3.

Mr. M. C. Gay, Assistant Disbursing Officer, and Mrs. Gay, sailed for the States on the *Panama*, April 5, on a six weeks' vacation.

Judge R. C. Goodale and family, of Gorgona, sailed on the *Panama*, April 5, for an eight weeks' leave of absence in the States.

Marriage of Commissioner Rousseau and Miss Squiers.

Civil Engineer H. H. Rousseau, U. S. N., of the Isthmian Canal Commission, and Miss Gladys Squiers, eldest daughter of the American Minister, Herbert G. Squiers, were quietly married at the Hotel Tivoli on Saturday evening, April 4, in the presence of a few friends, after an engagement of nine months. The civil ceremony was performed at that time by Judge H. A. Gudger, Associate Justice of the Supreme Court of the Canal Zone, and the church ceremony is to be performed by Father Collins of the Roman Catholic church at Panama.

Sojourners Lodge No. 874, A. F. and A. M.

THE CANAL RECORD:

Sojourners Lodge No. 874, A. F. and A. M. will meet at its hall in Colon, Saturday evening, April 11, at 7.30 p. m. in Ordinary Communication. Masons in good standing are fraternally invited to be present.

JOHN LAGERQUIST,
Secretary.

The Tivoli Club will give its next dance on Saturday evening, April 11.

OFFICIAL CIRCULAR.

New Form for Non-Expendable Property Record and Return.

Office of the Disbursing Officer,
Empire, C. Z., March 30, 1908.

Circular No 33.

To All Concerned: Referring to the following quotation from Executive Order of August 15, 1907, relative to the duties of the Disbursing Officer:

"(e) To keep property accounts with the various offices upon the Isthmus charged with custody or use of property."

There will be effective July 1, 1908, a new form (D. O. 420A) of property record and return to be used by all accountable officers for non-expendable property. On December 31, 1908, this record will be completed and forwarded to the Disbursing Officer as the Return of Non-Expendable Property for the six months period, and a similar return will be submitted on June 30 and December 31 of each year thereafter, and at such other times as an accountable officer may transfer his entire list of property.

In order that the new record, which will be based on office record of June 30, 1908, may be correct at the start, any cases of shortage or unserviceable property should be submitted to the Board of Survey and Appraisal for action, so that an approved report can be entered as a voucher on the June 30 return. This will, no doubt, require an inventory about March 31, or in sufficient time to enable the Board of Survey and Appraisal to act before June 30.

The record on Form 420A will be made in the following manner: Opposite "On Hand Last Return" will be placed, in the debit column, the quantity on hand at beginning of period. Under the heading "Debit" will also be placed the quantities of all items received, stating whether by store invoice or transfer invoice. Under the heading "Credit" will be placed the quantities of all items dropped, stating whether by transfer invoice or action of Board of Survey. The unit price and the number and date of paper on which action is based, will be given in each case. Proper remarks will be made under "Remarks" column All entries to be kept current. At the close of a period (December 31 to June 30) the total of the debit and credit columns, and balances remaining on hand, will be inserted in spaces indicated, and the record will be sent to this office. A new set of sheets will be made up by the responsible or accountable officer, carrying forward on same the balances on hand. In forwarding returns, Form 420 will be used as front cover and Form 420B as back cover; the entire return being bound together with tape. Care should be taken to see that the entries are legible, both on original and duplicate. Original to be forwarded to this office, and the duplicate to be retained by the officer rendering the return.

The return forwarded to this office for period ending December 31, 1908, will be checked here, and bottom part of the form will be used by this office in entering up the record for the succeeding six months, which record will be checked against the return to be forwarded to this office on June 30. The accountable officer will always have on hand carbon copies of the record by semi-annual periods, against which should be checked any discrepancies noted by the Disbursing Officer.

Form 420A supersedes Forms A-209a, A-210a, A-210b, A-210c, A-210d and A-212.

All returns will be made on forms 420, 420A and 420B; one return to cover *all* non-expendable property of each department or division. The forms will not be printed for different departments or divisions. Attached will be found copies of these forms, on which entries have been made to show the proper method of making records.

If, after reading this circular and examining sample forms, any instructions regarding preparation of form and rendering of return are not understood, the matter should taken up with the Disbursing Office, and, if it can not be properly explained by correspondence, a representative from this office will be sent to make the necessary explanation.

In connection with this new Property Record and Return, the following paragraphs, as taken from previous circular issued, with regard to property accountability, are pertinent at this time:

"Property may be received on store invoices or stub requisitions from the Division of Material and Supplies, or on transfer invoice and receipt from any accountable officer.

"Property may be dropped only on transfer invoice and receipt, under proper authority or on report of Board of Survey and Appraisal

"Transfer Invoice and Receipt form will be used for all movements of property between *accountable* officers after the initial issue by the Division of Material and Supplies. (See instructions on that form)"

Also see circular No. 9 from this office, under date of September 26, 1907.

The Inventory and Survey Report, Form A-178, will be used to advise the Board of Survey and Appraisal of the kinds and quantities of worn-out or damaged property, and should be made semi-annually, on the first days of June and December, so that disposition may, if possible, be made of the property in the semi-annual property return, due on the last day of the months named.

Property totally destroyed, or lost, should be reported on Form A-179, Report of Survey, which may be submitted to the Board of Survey and Appraisal at any time by the accountable officer. This form will give the identity and description of the property, its value as near as can be ascertained, as well as the date and circumstances of loss. It will be supported by the affidavit of the responsible officer and the certificate of the accountable officer, with any other evidence obtainable; and, when finally acted upon and credit allowed, should be taken up by "Case No. ......" under the date of approval by the Secretary of Board of Survey and Appraisal,

The memorandum Receipt of Property in use, Form A-177, should be used in all cases where a responsible or accountable officer transfers his responsibility to a subordinate.

All papers referring to property accountability shall be forwarded, through the head of the respective departments, to the Disbursing Officer, except the report on forms A-178 and A-179, Report of Survey.

Respectfully,

(Sgd.) Edward J. Williams,
Disbursing Officer.

Approved:

(Sgd.) D. D. Gaillard,
Acting Chairman and Chief Engineer.

Health at Panama.

Panama reports for 1907 not a single case of bubonic plague nor of yellow fever (it is now twenty-two months since the last case of yellow fever on the Isthmus), only one death from smallpox, a 50 per cent. reduction from the preceding year in "malaria," a corresponding decline in dysentery, pneumonia and the other serious diseases of that country, and a consequent decrease in the death rate from that of 1906 of more than 31 per cent. This report concerns only the Canal Zone and the cities of Panama and Colon, but that has always been the unhealthiest part of the whole country.

Humboldt a century ago intimated after careful study that the Isthmus must always be ravished by yellow fever and "malaria," since the former was caused by the decaying mollusks and marine plants on the beach at low tide, and the latter by foul emanations from over-rank vegetation! Froude only a quarter of a century ago reckoned that nowhere else in all the world was there "concentrated in a single spot so much foul disease, such a hideous dungheap of moral and physical abomination." Humboldt was wrong and Froude was right, but time has reformed the conditions which Froude saw as thoroughly as it has corrected the errors which Humboldt cherished.

In both cases the work has been done, or chiefly done, by Americans. True, it was Manson who discovered that filariasis was conveyed from man to man by the Culex, and it was Ross who demonstrated that what was then ill named malaria was similarly conveyed by the Anopheles; but it remained for Reed, of the American army, to rob yellow fever of its terrors by showing that it was transmitted only by the Stegomyia. Moreover, it was under American administration that the knowledge and resources of modern science were applied to the hygienic redemption of the Isthmus. The result of their labors is as worthy a memorial of American achievement as the Canal itself will be.—*New York Tribune*, March 15.

COMMISSION CLUB HOUSES.

CRISTOBAL.

Fred Robertson, a carpenter in the Division of of Building Construction broke all local and Isthmian bowling records on Wednesday evening, April 1, by making a score of 279. He made eleven strikes The only break occurred in the seventh frame when the first ball brought down only nine pins. If the other pin had fallen he would have had a perfect score of 300 points.

Mr. Gourlie, Asst. Secretary, has prepared the following program for a gymnastic exhibition and contest to be given at the Club house, Friday evening, April 24: March and calisthenic drill; contest on German horse; club swinging drill; exhibition on parallel bars; contest on parallel bars; pyramid building by class. Messrs. La Rose and Gifford will be the judges and gold, silver and bronze medals will be awarded the winners in the various events.

The second term of educational work will close April 17. The third term will begin about June 1 with several additional classes.

The two billiard tables have been recently re-covered and are in first class shape for the billiard tournament that is to begin shortly.

CONSULAR CORPS.

The following is a revised and enlarged list of the Consular Corps residing on the Isthmus:

Consuls Residing at Panama.

United States—Arnold Shanklin, Consul-General (and in charge of interests of Greece and China.)
United States—Felix Ehrman, Vice Consul-General.
United States—Caspar L. Dreier, Deputy Consul-General.
Bolivia—Samuel Boyd, Consul-General.
Guatemala—Jose Fernando Arango, Consul-General.
Salvador—Federico Boyd, Consul-General.
Salvador—Ernesto A. Boyd, Vice-Consul.
Belgium—B. D. Fidanque, Consul.
Brazil—Ramon Arias F., Consul.
Costa Rica—Louis Uribe, Consul.
Cuba—J. Gabriel Duque, Consul.
Denmark—J. L. Maduro, Consul.
San Domingo—Mauricio Fidanque, Consul.
Germany and Italy—Arturo Kohpcke, Consul
Mexico—Jose Maria Aramendia, Consul.
Netherlands—Dr. A. Jesurun, Consul.
Spain—Juan Potous y Martinez, Consul.
Venezuela—Coronel S. McGill, Consul.
Great Britain—F. W. Manners, Vice-Consul.
Ecuador—Pedro Arias F., Vice-Consul.
France—Albert Ritt, Vice-Consul.
Nicaragua—Dr. Augusto S. Boyd, Vice-Consul
Norway—Edwin Hunter Melville, Vice-Consul
Peru—Alberto de Obarrio, Consular Agent.

Consuls Residing at Colon.

United States—Dr. J. C. Kellogg, Consul.
J. M. Hyatt, Vice-Consul.
France—M. Leon Huttinot, Consul.
Germany—L. Heuer, Consul.
Spain—E. Bastar, Consul.
Belgium—C H. R. Raven, Consul.
Denmark and Santo Domingo—Joseph Fidanque, Consul.
Costa Rica—F. R. Cowan, Consul.
Mexico—A. M. Rojas, Consul.
Nicaragua and Salvador—J. C. Stevenson, Consul.
Netherlands—E. J. Henriques, Consul.
Norway—H. B. Parker, Consul.
Great Britain—E. F. Hudson, Vice-Consul.
Peru—A. D. Abello, Consular Agent.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, April 8, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Badger, Mrs. Beulah
Ball, Ivan H.
Bowen, Fred S.
Brown, Estella
Clancy, Micheal
Durland, Randolph
Eaton, Fred
Goodenau, A B.
Hoey, John
Howell, Mrs. R.
Junger, Harry
Kent, Thos. L.
Kenny, Charles
Keegan, John J.
Macgregor, Geo. M.
McCratny, Dr. F. P.
Picket, David
Price, T. J.
Reams, Miss Gladys
Rockford, Rich. S.
Watson, J. E.
Wallace, Joe
Woodman, Frank
Yonmaa, Frank E.

COMMISSARY DEPARTMENT.

NOTICE.

On and after Sunday, April 5, the Commissaries will not be open for business on Sundays or Legal Holidays. Purchases should be made on Saturday or the day preceding a holiday.

JOHN BURKE,
Manager.

Approved:
HIRAM J. SLIFER,
General Manager.

COMMISSARY PRICES

For week ending April 7 :		*Price*
FRESH MEATS.		CTS
Beef—Sirloin roast	per lb	27
Rump roast	do	27
Porterhouse	do	27
Rib-roast, short-cut, (not under 3½ pounds	do	20
Rib-roast, second cut	do	17
Chuck-roast	do	13
Soup	do	7
Stew	do	11
Corned	do	10, 12 14
Suet	do	6
Steaks—Sirloin	do	27
Porterhouse	do	27
Rump	do	27
Tenderloin	do	27
Round	do	18
Veal—Cutlets	do	24
Short-cut chops	do	24
Loin	do	23
Entire forequarters	do	11
For stewing	do	11
Mutton—Entire forequarters	do	9
Short-cut chops	do	20
Leg	do	†18
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	28
Legs	do	†25
Pork—Cuts	do	20
MISCELLANEOUS		
Livers—Beef	per lb...	10
Livers—Calf	each...	60
Sausage—Pork	per lb...	16
Bologna	do	15
Frankfurter	do	15
Lieberwurst	do	15
Sweet bread—Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues	per lb...	24
Pigs' feet	do	†11
Ox tongues	each...	90
POULTRY AND GAME.		
Chickens, dressed (milk-fed)	each...	†1.50
Chickens, roast	do	1.15
Fowls	do	1.10
Ducks, fatted (fancy)	do	*1.15
Turkeys	per lb...	26
Broilers (chicken frys)	each...	90
Squabs	do	35
Eggs, fresh	per doz...	30
Geese (10 lbs.)	each...	2.00
CURED MEATS AND LARD.		
Bacon—Strips	per lb...	23
English breakfast, sliced	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45
DAIRY PRODUCTS.		
Butter—prints, prime quality	per lb...	40
Ice cream	brick	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Gouda	do	34
Camembert	do	28
Edam	each...	1.05
Pinxter's	tin...	22
Buttermilk	bot...	**15
FRUITS AND VEGETABLES.		
Pineapples	each ..	16
Oranges	per doz...	12
Grape Fruit	each...	2½
Lemons	per doz...	15
Beets	per lb...	†6
Limes	hun...	*80
Celery	bunch...	*25
White potatoes	per lb...	3
Wax beans	per lb...	25
Onions	per lb...	3½
Lettuce	do	15
Cucumbers	per lb...	28
Sweet potatoes	do	2½

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* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from Commissaries*

Work on Sewers.

The D street drainage canal at Colon is being cleaned and put into shape to handle the flood waters of the rainy reason. Throughout the Zone attention is being given to the extension of water mains and sewers by the Division of Municipal Engineering and special attention is being given to the extension of the sewers, in order to finish as much of the trench work as possible before the rainy season sets in.

March Rainfall for Three Years.

Station.	1906.	1907.	1908.	Av'ge since station estab'd.	No. of rainy days
Atlantic Slope					
Cristobal	1.42	2.16	3.53	1.60	14
Brazos Brook	....	1.97	3.01	2.49	14
Gatun	2.37	3.42	2.81	2.22	15
Bohio	.88	1.82	1.77	1.61	14
Tabernilla	....	....	.73	....	9
San Pablo	....	....	.49	....	8
Central Sec.					
Bas Obispo	....	.34	.41	.75	6
Gamboa	.16	.35	.50	.80	8
Empire	.45	.16	.41	.34	6
Camacho	....	.14	.38	.26	5
Culebra	1.34	.08	.13	.75	5
Rio Grande	.47	.05	.14	.16	4
Pacific Slope					
Pedro Miguel	....	....	.10	....	3
La Boca	.01	.01	*T	.95	0
Ancon	.05	*T	.03	.87	1
Chagres Val.					
Alhajuela	.28	.18	.24	.61	8

* Trace

Easter Services, Ancon Roman Catholic Chapel.

Special services will be held at the Roman Catholic chapel, Ancon Hospital, at 9 a. m. on Easter Sunday, April 19. The Rev. Father Collins will preach the sermon.

Concert.

By the I. C. C. Band at Culebra, C. Z., Sunday, April 12, 1908, at 2.30 p. m.:

PROGRAM:

1 March................*Flag of Victory*...Von Blon
2 Selection.............*Faust*....................Gounod
3 (*a* Danse characteristic..........*Thesis*......................Losey
(*b* Intermezzo ......*Nippono*..................Lincoln
4 Waltz.................*Vienna Beauties*.......Zichrer
5 Solo for cornet....*The Sweetest Story Ever Told*.....Stultz

CHAS. E. JENNINGS

6 Selection.............*Reminiscences of Scotland*.............Godfrey
7 Reverie................*Apple Blossoms*......Roberts
8 Overture..............*Schauspiel*.................Bach
9 Descriptive..........*Cavalry Charge*................ Luders

Synopsis—Morning of the battle; infantry heard approaching with fife and drum; cavalry in the distance, coming nearer and nearer until they charge upon the enemy; cavalry, infantry and artillery in the melée of battle; defeat of the enemy, pursued in the distance by the cavalry.

10 March.................*Sheridan Sabres*.....St. Clair

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Bas Obispo, April 19

PANAMA RAILROAD COMPANY

TIME TABLE No. 1

IN EFFECT MARCH 1st, 1908

SOUTH BOUND			Distance from Colon	MAIN LINE	Distance from Panama	NORTH BOUND			
No. 7 Pass.	No. 5 Pass.	No. 3 Pass.		*S Stop* *F Flag Station*		No. 2 Pass.	No. 4 Pass.	No. 6 Pass.	No. 8 Pass.
Daily	Daily	Daily		STATIONS		Daily	Daily	Daily	Daily
Leave	Leave	Leave	Miles		Miles	Arrive	Arrive	Arrive	Arrive
P. M.	A. M.	A. M.				A. M.	P. M.	P. M.	P. M.
4.35	10.30	5.30	00	† COLON	47.58	9.05	1.00	3.50	8.00
s 4.37	s 10.33	s 5.32	0.42	Cristobal	47.16	s 9.03	s 12.57	s 3.47	s 7.57
s 4.43	f 10.37	s 5.38	1.90	Mount Hope	45,68	s 8.58	12.53	3.42	s 7.52
f 4.48	10.43	f 5.44	4.52	Mindi	43.06	f 8.50	f 12.46	f 3.35	f 7.45
s 4.55	s 10.50	s 5.50	7.08	Gatun	40.50	s 8.43	s 12.40	s 3.30	s 7.40
4 56	10 51	5.51	7.20	† Gatun (cabin)	40.38	8.40	12.37	3.26	7.36
f 5.03	f 11.00	5.58	10.68	Lion Hill	36.90	8.33	f 12.30	3.19	f 7.29
f 5.08	f 11.06	6.03	12.75	Ahorca Lagarto	34.83	8.27	f 12.24	3.13	f 7.22
s 5.15	s 11.13	s 6.10	15.52	† Bohio	32.06	s 8.20	s 12.17	s 3.05	s 7.15
s 5.23	s 11.22	6.18	18.75	† Frijoles	28.83	s 8.10	f 12.08	2.58	s 7.06
s 5.31	s 11.31	s 6.26	21.62	Tabernilla	25.96	s 8.03	P. M. s 11.58	s 2.50	s 6.58
5 32	11.32	6.27	21.86	† Tabernilla (cabin)	25.72	8.02	11.56	2.49	6.57
5.35	11.35	6.30	22.84	Barbacoas	24.74	8.00	11.54	2.47	6.55
s 5.37	s 11.37	s 6.32	23.56	San Pablo	24.02	s 7.58	s 11.52	s 2.46	s 6.53
5.38	11.38	6.33	24.00	† San Pablo (cabin)	23.58	7.57	11.51	2.45	6.52
f 5.40	f 11.40	6.35	24.57	Bailamonos	23.01	7.54	f 11.48	2.43	f 6.50
s 5.45	s 11.45	s 6.40	26.02	† Mamei	21.56	s 7.50	s 11.45	2.40	s 6.47
5.49	11.50	6.45	28.22	† Gorgona (cabin)	19.36	7.42	11.38	2.33	6.38
s 5.53	s 11.53	s 6.49	28 53	† Gorgona	19.05	s 7.41	s 11.37	s 2.32	s 6.37
s 5.58	s 11.58	s 6.54	29.90	† Matachin	17.68	s 7.36	s 11.32	2.27	s 6.32
6 00	P. M. 12 01	6.56	30.70	† Bas Obispo (cabin)	16.88	7.33	11.28	2.24	6.28
s 6.03	s 12.03	s 6.59	31.26	Bas Obispo	16.32	s 7.32	s 11.27	s 2.23	s 6.27
6.05	12.05	7.01	31.98	† Bridge 52 (cabin)	15.60	7 29	11.24	2.20	6 24
s 6.09	s 12.09	s 7.05	32.83	Las Cascadas	14.75	s 7.26	s 11.20	s 2.17	s 6.21
6.11	12.11	7.07	33.49	† White House (cabin)	14.09	7.22	11.17	2 13	6.17
s 6.17	s 12.17	s 7.14	35.18	† Empire	12.40	s 7.17	s 11.13	s 2.10	s 6.14
s 6.22	s 12.22	s 7.19	36.18	Culebra	11.40	s 7.10	11.08	s 2.00	s 6.10
6.23	12.23	7.20	36.27	† Culebra (cabin)	11.31	7.09	11.06	1.59	6 09
6.30	12.30	7.26	39.04	Cucaracha	8.54	7.00	10.57	1.51	5.57
s 6.32	s 12.32	s 7.28	39.78	Paraiso	7.80	s 6.58	f 10.56	1.50	f 5.56
s 6.37	s 12.38	s 7.31	40.72	Pedro Miguel	6.86	s 6.54	s 10.52	s 1.48	s 5.52
6.38	12.39	7.32	41.09	† Pedro Miguel (cabin)	6.49	6.52	10.51	1.46	5.50
s 6.42	s 12.43	s 7.35	42.08	† Miraflores (cabin)	5.50	s 6.50	s 10.48	f 1.44	s 5.48
s 6.50	s 12.50	s 7.40	44.55	† Corozal	3.03	s 6.43	s 10.40	s 1.38	s 5.40
6.53	12.56	7.45	46.75	† La Boca Junct.	0.83	6.38	10.33	1.32	5,33
7.00	1.00	7.50	47.58	† PANAMA	00	6.35	10.30	1.30	5.30
P. M.	P. M.	A. M.		† *Telegraph Stations*		A. M.	A. M.	P. M.	P. M.
Arrive	Arrive	Arrive				Leave	Leave	Leave	Leave

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon.
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop,
Secretary, Ancon

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. B. DePutron, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
Capt. George M. Hoffman, U. S. A., Assistant Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun.
Sydney B. Williamson, Division Engineer, Corozal.
G. B. Strickler, Assistant Division Engineer, Corozal.
E. A. LeMay, Chief Clerk.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent. Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.

Division of Material and Supplies: W. G. Tubby, Chief, Cristobal.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
C. R. Sargent, Chief Clerk.
David C. O'Conner, Superintendent of Schools, Ancon

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Loria C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
I. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department

John Burke, Manager, Cristobal.
P. T. Murphy, Asst. Manager, Cristobal.

Purchasing Department.

Headquarters, Washington, D. C., U. S. A.

Lieut.-Col. H. F. Hodges, U. S. A., General Purchasing Officer.
C. E. Dole, Chief-Clerk.

F. C. Nordsiek, Asst. Purchasing Agent, 24 State Street, New York City.
S. E. Redfern, Asst. Purchasing Agent, Custom House, New Orleans, La.
W. G. Tubby, Purchasing Agent on the Isthmus, Cristobal, Canal Zone.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, and of the Hamburg-American Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK.

Finance	P. R.R.	Thursday	April 2
Siberia	H.-A	Saturday	April 4
Magdalena	R.-M	Saturday	April 4
Colon	P. R R.	Tuesday	April 7
Prinz Joachim	H.-A	Saturday	April 11
Advance	P. R.R.	Monday	April 13
Panama	P. R.R.	Saturday	April 18
Sarnia	H.-A	Saturday	April 18
Orinoco	R.-M	Saturday	April 18
Allianca	P. R.R.	Thursday	April 23
Prinz Aug. Wilhelm	H.-A	Saturday	April 25
Finance	P. R.R.	Tuesday	April 28

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON

Panama	P. R.R.	Sunday	April 5
Pr. Eitel Friedrich	H.-A	Tuesday	April 7
Orinoco	R.-M	Wednesday	April 8
Allianca	P. R.R.	Friday	April 10
Prinz Aug. Wilhelm	H.-A.	Tuesday	April 14
Finance	P. R.R.	Wednesday	April 15
Colon	P. R.R.	Monday	April 20
Prinz Sigismund	H.-A	Tuesday	April 21
Atrato	R -M	Wednesday	April 22
Advance	P. R.R.	Sunday	April 26
Prinz Joachim	H.-A	Tuesday	April 28
Panama	P. R.R.	Friday	May 1
Pr. Eitel Friedrich	H.-A	Tuesday	May 5

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Magdalena	R.-M	Tuesday	April 14
Orinoco	R.-M	Tuesday	April 28

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board Tuesday evening.

The United Fruit Company despatches a steamer from New Orleans for Colon every Saturday, due to arrive the following Thursday. Sailings by this line from Colon to New Orleans every Tuesday.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *William Cliff*, about April 14, and *Floridian*, April 26.

The following steamers have recently arrived at La Boca: March 28, *Manavi* from Guayaquil; March 31, *Peru* from San Francisco and *Ecuador* from Guayaquil; April 3; *Mapocho* from Valparaiso. Departures were: March 29, *Huasco* for Valparaiso; March 30, *City of Para* for San Francisco; April 3, *Manavi* for Guayaquil and *Hermonthis* for southern ports.

Isthmian Baseball League.

Scores, April 5, 1908:

At Ancon Park: Ancon, 5; Culebra 1.
At Empire Park: M. P. & M., 8. Kangaroos, 1
At Gorgona Park: Gorgona, 16; Marines 2.

STANDING OF THE LEAGUE.

April 6, 1908:

	Played.	*Won.*	*Lost.*	*Per cent.*
Ancon	14	12	2	857
Empire	15	12	3	800
M. P. & M	15	11	4	733
Culebra	15	7	8	467
Kangaroos	15	6	9	400
Gorgona	14	2	12	143
Marines	14	1	13	071

(On Sunday, April 5, 1908; the Marine baseball team took the place of the Gatun team in the League, with the latter's percentage.)

(The Culebra-Gorgona game of March 29 was forfeited to Gorgona, score 9 to 0.)

To be played April 12, 1908:
At Ancon Park: Gorgona vs. Ancon.
At Empire Park: Culebra vs. Kangaroos.
At Gatun Park: Marines vs. M. P. & M.

CANAL RECORD

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The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies and back numbers can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Commissary to Suppiy Pastry and Ice Cream.

The Commissary Department announces that beginning on Monday, April 20, the bakery at Cristobal will be prepared to furnish pies, pastry and rolls to all Commission hotels, messes and employes in general. A complete pastry baking outfit has been installed at the bakery, consisting of the most modern machinery. Assurance is given that pastry of a satisfactory quality will be produced. A schedule will be given out showing the various articles that will be supplied on each day of the week, and will be published in THE CANAL RECORD. Owing to the fragile nature of the articles it will be impossible to deliver them, except through the local commissaries. They can not be obtained on order by persons along the line from the main commissary at Cristobal.

Within the next few weeks the Commissary Department also expects to open an ice cream factory. An experienced ice cream maker from the States will be in charge, and modern machinery and the most improved methods will be employed in its manufacture. All milk used will be brought from New York in cold storage. Ice cream will be supplied, like pastry, through local commissaries only.

New Dynamite Magazine.

A new dynamite magazine, with a capacity of 300 tons of explosives, will be built by the Division of Material and Supplies in the Mindi hills. It will be located about one and one-half miles east of Mindi, on the Panama railroad, from which point a connecting track will be run to the magazine. Work will be begun on it at once and it is expected that the magazine will be completed in about a month.

Another storage magazine will be built by the division somewhere near Bas Obispo, but the exact location has not yet been determined. Additional service magazines will also be constructed on the various divisions of Canal work. When these new magazines are completed the old French magazines at Bas Obispo and Gold Hill will be abandoned.

Water Consumption at Panama and Colon.

The report of the Superintendent of Public Works for March, 1908, shows that, including Colon and Panama, the Department has on its records 1,635 contracts for water service in operation, and 1,480 water connections, In the city of Panama for the quarter ending March 31, 1908, 60,870,000 gallons of water were used by private parties, and 9,082,000 gallons were used at public taps and hydrants, making a total consumption of 70,402,000 gallons, an average consumption of 577 gallons per day per connection, and 105,000 gallons per day for all public taps, hydrants, fountains, etc. The average daily consumption of water in the city of Panama for the period was about 766,000 gallons.

At Colon, during the same period, 40,410,182 gallons were consumed, of which 20,230,237 gallons were at 235 private taps. The average daily consumption at Colon for the three months was about 493,000 gallons.

New Fire Alarm Systems Completed.

The fire-alarm systems which the Fire Department has had installed at Ancon, Culebra, Empire and Gorgona are completed with exception of the alarm boxes, which have not yet arrived from the States. The systems at Empire and Culebra will be combined. There will be one switchboard and one battery for the two, which will be located at Empire.

During the past week one hose wagon each has been shipped to Gorgona, Empire and Culebra, and two to Ancon, and the combination wagon that was at Ancon has been sent back to Cristobal, as it is better adapted for service on the level roads of that place than on the hilly roads at Ancon. Each of these wagons will be equipped with four men, two three-gallon fire extinguishers, one 20-foot extension ladder, and one 12-foot roof ladder, and will be drawn by two horses. One of the volunteer fire companies in the town of Gorgona will be disbanded, leaving two at that place—one in the town and one at the shops. Also one of the two volunteer companies now at Empire and Culebra will be disbanded.

Subway in Panama.

A subway five feet wide, seven and one-half feet high and twenty-one feet long, has been constructed the past week under the incline on Northern Avenue, near the market in Panama, between Ninth and Eleventh Streets. In order to make the width of the tunnel five feet, a width of nine feet had to be cut through the walls supporting the incline, as the walls of the tunnel are two feet thick. This wall will enable people on either side of the incline to reach the opposite side without the necessity of climbing a high flight of steps or going around the incline. and will be a great saving in distance especially appreciated by the carriers of heavy fruit and produce about the market. It will also tend to lessen the number of pedestrians using the incline, which was built for traffic of vehicles, but which is largely used by people on foot who prefer it to climbing the steps.

Zone Highways.

The Department of Municipal Engineering is planning a complete system of macadam roads for the Canal Zone, and work on them is being pushed forward rapidly. On account of the large lake that will be formed by the dam at Gatun this road system naturally divides itself into two sections; one leading from Colon to Gatun, at the north end of the lake, and the other from Panama to Gorgona, at the south end of the lake.

The road from Colon to Gatun will be about seven miles long and will be built some distance away from the railroad, in order to give the inhabitants of the Zone an additional means of transportation. This road is under construction at the present time, convict labor being used. A distance of nearly two miles, from Colon to Mount Hope, has already been completed. Work towards Gatun was also begun about a mile and a half beyond Mount Hope at a point near Brazos Brook reservoir, and about one mile of the road in the vicinity has been completed. The portion between Mount Hope and Brazos Brook will be left until the last, as it will be of easier construction than the other portions and it can be more easily finished in the rainy season. It will also prevent traffic over the road until the whole is completed, as otherwise the finished portions of the road from Colon might be used as the work advanced, which would not be desirable especially in view of the large number of convicts on the work.

The Police Department endeavors to keep an average of fifty convicts at Brazos Brook all the time. It also furnishes district prisoners for use on this work. The latter are used principally for the lighter work of cutting down and clearing away the brush on the line of the road, preparatory to the heavier work of grading, for which work they are better adapted than the convicts.

The convict camp is located near the Reservoir and is in charge of a Coporal of Police and ten men. It consists of a large building for the quartering of the convicts—

NOTES OF PROGRESS.

(*Continued*)

which is surrounded by a high barb-wire fence—kitchen and mess for the convicts, three tents as quarters for the guards, and one tent for their mess. A building is now in process of construction for the quartering of the District prisoners, who at present have to return to Cristobal every night. After the completion of these quarters it will be necessary for them to return to Cristobal only at the expiration of their sentence. The Department of Labor, Quarters and Subsistence has established a cooking mess at the camp and the convicts are being fed in the same manner as the laborers at Cristobal. The work of the convicts has proved to be surprisingly efficient, one convict performing work equal to that of three ordinary negro laborers. Already settlers are beginning to take advantage of the road that is being built through this section, and a number have made their appearance, erecting huts, clearing away fields, and making other preparations for farming.

The engineering parties in the various residencies of the Division are locating a system of roads that will lead from Panama to Gorgona. No construction work has yet been done in this section, although the general line of the road between Panama and Miraflores has been determined, as has the road from Gorgona to Culebra. This road in most places will be about one mile from the railroad. The surveys now being made will use, as much as possible, the system of roads that have been constructed by the Canal Commission for the purpose of facilitating Canal work. The intention is to locate these roads away from the railroad so as to develop the agricultural resources of the country to as great an extent as possible. A bridge has just been completed at Gorgona, which will used for both the roads of the town of Gorgona and the roads of the Zone. It has not yet been determined at what point the road from Panama to Gorgona will cross the Canal, whether at the locks at Miraflores or Pedro Miguel. In addition to this road there will be a road on the Bas Obispo side of the Canal in the vicinity of that town. Besides these main roads, which will eventually be the principal thoroughfares of the Zone, branch roads of lighter construction will run back in the country to the Zone boundary. There is already one of these roads running through a rich agricultural section of the country from Bas Obispo to Alhajuela.

In the vicinity of Panama there have been constructed, since American occupation, about eight miles of macadam road, four miles of which are on the Sabanas and four in the vicinity of Ancon and La Boca.

March Material and Supplies.

The March report of the Chief of the Division of Material and Supplies shows that the total amount of material disbursed by the Division during the month was valued at $837,764.63, of which $825,202.06 was new material and $12,562.57 French stock. Thirty ships arrived at Colon and Cristobal and two at La Boca during the month with supplies of various kinds for the Commission.

At the various storehouses of the Division 1,408 cars of freight were handled during the month, an increase of 417 over the number handled in February. Among the supplies issued were 414,150 pounds of dynamite, 59,100 feet of triple tape fuse, 12,100 detonators and 32,950 electric exploders.

Gatun Steam Shovel Work.

For the week ending April 4, the seven steam shovels working at the Gatun lock site, excavated a total of 66,033 cubic yards, car measurement, an average of 9,433 cubic yards per shovel. The best record was made by shovel No. 134, with 11,726 cubic yards, an average of 1,954 cubic yards per day. The maximum daily output of the seven shovels for the week was made on Tuesday, March 31, when 12,188 cubic yards, car measurement, were excavated, an average of 1,741 cubic yards per shovel. The highest daily record for the week was made on Tuesday, March 31, by shovel No. 117, when 2,136 cubic yards were removed.

During the same period the five shovels at the spillway excavated a total of 30,912 cubic yards, an average of 6,182 cubic yards per shovel. The maximum daily output for the five shovels was made on Tuesday, March 31, when 7,716 cubic yards were removed, an average of 1,543 cubic yards per shovel. The best record for the week was made by shovel No. 119, with a total of 8,724 cubic yards, an average of 1,454 cubic yards per day. The highest daily record for the week was also made by shovel No. 119, on Wednesday, April 1, when 2,204 cubic yards were removed.

At Mindi, the two steam shovels at work excavated a total of 16,968 cubic yards for the week ending April 4, an average of 8,484 cubic yards per shovel. The maximum daily output by the two shovels for the week was on Monday, March 30, when 3,262 cubic yards were removed, an average of 1,631 cubic yards per shovel. The best record for the week was made by shovel No. 133, with a total of 8,581 cubic yards, an average of 1,430 cubic yards per day. The highest daily record for the week by either of the two shovels was made by shovel No. 103 on Monday, March 30, when 1,725 cubic yards were removed.

Bill for the Relief of Mr. Banton.

The bill appropriating $10,000 for the relief of Mr. Banton, the injured Isthmian Canal employe, whose case was stated in THE CANAL RECORD of last week, was passed by the Senate on March 27, and is now before the Committee on Claims in the House. The full text of the bill is appended:

An Act for the relief of Pembroke B. Banton.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury be, and he is hereby, authorized and directed to pay to Pembroke B. Banton, of Waterloo, Iowa, out of any funds in the Treasury of the United not otherwise appropriated, the sum of ten thousand dollars, to compensate him for injuries received while in the employ of the Government on the Panama Canal.

The Italian cruiser *Etruria*, Captain Conte Leonardi, arrived at Colon on the morning of April 13, and will be in the harbor for several days.

HIGHEST MARCH SHOVEL RECORDS.

The records of the highest steam shovels in each of the four construction districts of the Culebra Division, with the number of the shovel, for the month of March, 1908, consisting of 26 working days, are as follows:

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
BAS OBISPO DISTRICT.			
110	28,716	....	28,716
111	19,846	8,506	28,352
201	....	31,620	31,620
217	24,392	24,392	48,784
EMPIRE DISTRICT.			
207	....	35,412	35,412
226	17,008	25,512	42,520
CULEBRA DISTRICT.			
109	34,368	....	34,368
152	41,219	....	41,219
213	....	41,989	41,989
223	....	39,513	39,513
PEDRO MIGUEL DISTRICT.			
123	24,443	3,021	27,464
202	35,325	3,072	38,397
211	21,790	15,779	37,569
OBISPO DIVERSION.			
121	19,144	5,370	24,514

The records of the highest steam shovels in the Chagres Division, with the number of the shovel, for the month of March, 1908, consisting of 26 working days, are as follows:

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
MATACHIN.			
108	35,488	....	35,488
SANTA CRUZ.			
156	31,615	....	31,615
SAN PABLO.			
115	26,830	11.499	38,329
CAIMITO.			
59	32,026	....	32,026

BEST DAILY RECORD OF SHOVELS IN CHAGRES DIVISION.

March 14—No. 53.......................1,775 cu. yds.
March 9—No. 115.......................2,125 cu. yds.
March 30—No. 156.......................2,280 cu. yds.
March 30—No. 254.......................2,400 cu. yds.

The records of the two 70-ton shovels at Mindi for the month of March, 1908, are as follows:

No. 103...........41,128 cu. yds. of earth and rock
No. 133...........40,722 cu. yds. of earth and rock

BEST DAILY RECORD AT MINDI.

Mar. 2, No. 103—2,037 cu. yds. of earth and rock
Mar. 2, No 133—1,996 cu. yds. of earth and rock

Note—Shovels in the fifty class are 45-ton shovels with buckets of a capacity of 1¾ cubic yards. Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dipper capacity of 5 cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

SOCIAL LIFE OF THE ZONE.

Patriotism Becoming a marked Feature of the Zone Organizations.

An interesting feature in the development of community life in the Zone, is to be observed in the growing observance of patriotic anniversaries of national and states historic days. In this connection the report that the Culebra Woman's Club is preparing for the observance of the Battle of Lexington is one of special interest. It is thought that it will be the means of determining the number of daughters of the American Revolution living on the Isthmus. A colonial program will be given by the members of the club at the meeting April 16.

The Empire club held the first "Mother's Meeting" on April 9 that has been given since the organization of the clubs in the Zone. There was a large attendance of club members. A party of members of the Culebra Woman's Club, including the president, Mrs. E. M. Pullen, were guests of the afternoon. The program consisted of papers dealing with the home life of the child, as well as the duties of mothers to the public schools. Each paper was followed by an open discussion. An interesting feature of the afternoon was a musical number given by six little girls, and a "Little Mother's Meeting" in which eight little girls took part. Refreshments were served and an informal reception to the visiting club and strangers followed.

The Empire Club holds its regular meeting every Thursday at 3.30, and they are well attended, much enthusiasm being shown by the members. The Vice-president of the club, Mrs. E. B. Beck, has returned from her vacation in Mexico and the States.

The Las Cascadas Club held its regular meeting April 9 with the president in the chair. There was a large attendance and after the short business meeting, the committee on entertainment took charge. The afternoon was devoted to games, social diversions and dancing. Prizes were awarded in several guessing contests, the first going to Mrs. Lingo and the second to Mrs. Van Hardeveldt.

Many of the clubs have suspended the regular routine business during the week for the preparations in connection with the Federation meeting at Empire, April 18. Elaborate preparations are being made by the entertaining club. Delegates and club members are expected to arrive in Empire on the trains leaving Panama and Colon at ten-thirty. Committees from the Empire club will meet both trains and take charge of the visitors, directing them where they wish to go. Provision will be made for the comfort of all guests at the Commission Club House. Lunch will be served at the hotel at the regular prices. The first session will begin at one-thirty. A meeting of the Executive Board will be held in one of the smaller rooms at one o'clock,

The business meeting will last two hours, from one-thirty to three-thirty, after which there will be a recess before the reception in honor of Mrs. George W. Goethals, which will be held from four to six. It has been estimated that there are about four hundred women in the federated clubs and it is expected that a large number will attend the meeting. Cards of invitation have been issued to every club member as follows:

"The Canal Zone Federation of Women's Clubs will give a reception in honor of the president, Mrs. George W. Goethals, on Saturday afternoon, April the eighteenth, nineteen hundred and eight, from four to six, at the Club House, Empire, Canal Zone."

This card is good for transportation to Empire and return on this date only. Members will, therefore, retain them until they are collected on the return trip.

This being the annual meeting of the Federation, among other important business will be the election of officers for the ensuing year, the reports from the committees appointed at the January meeting and the election of delegates to the Biennial convention of the General Federation of Women's Clubs to be held in Boston in June, as announced in THE CANAL RECORD last week. Applications of organizations eligible for admission to the Zone Federation will be considered at the meeting of the Board of Managers previous to the open business meeting.

The meeting of the Ancon Women's Club will be held on Thursday, April 16, instead of the regular day, owing to the official reception to Mr. and Mrs. Rousseau at Culebra. The meeting will be devoted to the completion of Federation business.

The services at the new Commission church building at Paraiso, on April 19, will be in memorium of the three recent deaths that have occurred in the community. The Rev. J. L. Wise will officiate.

The Spanish school ship *Nautilus* is lying in Colon harbor, with about fifty cadets on board. A party from the ship was taken across the Isthmus and through the Cut on Monday. The officers of the ship gave a reception on board on Tuesday afternoon, April 14, to which the officials of the Isthmian Canal Commission and the Panama Railroad Company, with their families were invited.

Harvest Exhibition,

The Colored Employes' of the Ithmian Canal Commission and Panama Railroad Athletic Club of Cristobal and Gatun, will hold bold a Harvest Exhibition at Mount Hope on Easter Sunday and Monday, April 19 and 20, opening at 1.30 p. m. each day. Exhibits of every kind are requested and should be sent to Mount Hope not later than Saturday, April 18.

In addition to the Harvest Exhibition, there will be a program consisting of addresses by prominent speakers, a contest in various athletic events, for which prizes will be awarded to the winners, and dancing. The Canal Zone colored schools have been invited and there will be a band in attendance. The charge for admission will be: adults 50 cents silver, and children 30 cents silver.

Benevolent and Protective Order of Elks

THE CANAL RECORD:

All members of the Benevolent and Protective Order of Elks are cordially invited to attend a meeting to be held at the Hotel Central, Panama, Sunday, April 19, 1908.

This meeting is called for the purpose of organizing an Elk Club, and to perfect arrangements for a rousing social session.

R. M. DAVIES,
Chicago No. 4.

Empire, April 10.

PERSONAL.

Lieut. R. E. Wood, Assistant Manager, Department of Labor, Quarters and Subsistence, accompanied by his mother and sister, sailed for the States on the *Allianca* on April 10. Lieut. Wood will remain in the States nearly three months, and during his vacation will be married to Miss Mary Butler Hardwick, of New York City. The wedding will take place on April 30, at St. Thomas church, in Fifth Avenue.

The Ven. Archdeacon Bryan returned to the Isthmus on the *Esperanza* which arrived at Cristobal on April 13.

Church Ceremony for Mr. and Mrs. Rousseau.

The church ceremony in the marriage of Commissioner Rousseau and Miss Squiers, following the civil ceremony which took place at the Hotel Tivoli on Saturday evening, April 4, was performed on Saturday morning, April 11, at 9 o'clock, by Father Collins of the Roman Catholic Church at the rectory, adjoining the chapel in the hospital grounds on Ancon Hill. There were present Lt.-Col. Geo. W. Goethals, Chairman and Chief Engineer of the Isthmian Canal Commission, and Mrs. Goethals, Commissioner Gaillard and Mrs. Gaillard, Commissioner Sibert and Mrs. Sibert, Commissioner Blackburn and Mrs. Blackburn, Commissioner Gorgas, Mrs. Gorgas and Miss Gorgas, Commissioner Jackson Smith, Secretary Bishop, Mrs. Bishop and Miss Bishop, Judge Gudger and Mrs. Gudger, Col. Tom M. Cooke, Mrs. Cooke and Miss Cooke, Miss Carter, Dr. W. E. Deeks, Consul-General Arnold Shanklin, Miss Walker and Miss Blair.

Official Reception.

The Isthmian Canal Commission gives an official reception to Mr. and Mrs. Rousseau, at the residence of the Chairman and Chief Engineer at Culebra this afternoon, to which a large number of invitations have been sent out.

Notice to Roman Catholics.

Special services will be held at the Roman Catholic chapel, Ancon Hospital, at 9 a. m. on Easter Sunday, April 19. The Rev. Father Collins will preach the sermon.

THE CANAL RECORD:

All English-speaking Roman Catholics who desire to make their Easter duty should be in the Ancon chapel between the hours of 7 and 9 p. m. Saturday, or 8 and 9 a. m. Sunday.

REV. DANIEL QUIJANO,
Resident Chaplain.

Episcopal Church Services.

Archdeacon Bryan will hold services at the Ancon Protestant chapel, Ancon hospital, as follows: Thursday, April 16, Evening Prayer, 4 p. m.; Good Friday, April 17, Morning Prayer, 8.45 a. m.; Easter Sunday, Holy Communion, 8.45 a. m.

Empire Lodge, No. 2, K. of P.

THE CANAL RECORD:

To all Knights of Pythias, Empire Lodge No. 2 will hold an Easter dance and reception on Monday evening, April 20, in Empire Y. M. C. A. hall. All Knights and their ladies are invited.

C. W. HILL,
Keeper of Records and Seal.

Empire, April 11.

HEALTH REPORT FOR MARCH.

Marked Improvement Shown.

To the Chairman, Isthmian Canal Commission, Culebra, C. Z.

Sir: I herewith forward report of the Department of Sanitation for the month of March, 1908.

I call your attention to the very low death rate among employes. We had during the month on the rolls 43,276 employes, of whom 45 died, which would give us an annual death rate of 12.47 per thousand. For the same month during the previous year, we had on the rolls 36,387 employes, among whom we had 122 deaths, giving us an annual death rate of 40.23 per thousand.

The death rate, therefore, was only about one-fourth what it was during the previous year. This means that if the same rate should continue, we would have 28 fewer deaths in every thousand of our employes, than we had during the previous year, and among our 43,000 employes there would be 1,200 fewer deaths.

This marked improvement in the rate is principally due to the improvement in the rate among our negroes. In March, 1907, we had 27,214 negro employes, who gave us 110 deaths, with an annual rate of 48.50 per thousand. In March. 1908, we had 31,102 negro employes, who gave us 28 deaths, with an annual rate of 10.80 per thousand.

Taking the total population under our sanitary jurisdiction, which includes the cities of Panama and Colon, we had in March, 1907, 95,421 people. Among these we had 257 deaths, giving us an annual rate of 32.32 per thousand. In the same month of 1908, we had 114,920 people, who gave us 198 deaths, and a rate of 20.67 per thousand—quite a satisfactory improvement. The rate of 20.67 per thousand for the total population, is the lowest we have ever had.

Taking special diseases and comparing same months, we had among our employes in March, 1907, 9 deaths from typhoid fever, 53 deaths from pneumonia, 16 deaths from malarial fever, and 12 deaths from tuberculosis. In March, 1908, we had one death from typhoid fever, 5 deaths from pneumonia, 9 deaths from malarial fever, and 3 deaths from tuberculosis.

Taking malaria for the same period, we had last year 1,576 cases among the employes admitted to our hospitals; this year 533.

The sick rate is also very satisfactory, being 18.23 per thousand, against 22.97 per thousand for March, 1907; that is, taking a thousand men of our force during the month of March, 1907, we had every day out of this thousand, 22.97 men sick; the following year, 1908, for the same number of men, we had only 18.23 men sick every day.

During the month plague has been officially reported to us at both Guayaquil and La Guayra. Plague quarantines were at once established against these points. The official report of plague at Guayaquil has caused a good deal of alarm to the native population under our sanitary jurisdiction. There is some reason why alarm should be felt. Guayaquil is a large city, with which Panama has considerable commerce, and which up to the present has been free from plague. Plague has, however, existed for the past four years on the coast south of Guayaquil, and I hope that the plague measures we have taken will continue to keep us free from this disease. Although we have been having commerce with plague ports, above and below us, for the past four years, we have gotten plague in only once, and succeeding in stamping that out immediately. In the fall of 1905, two cases developed, one at La Boca, and one at Ancon, but the measures taken at the time promptly stopped the infection.

No cases of yellow fever, plague or smallpox developed on the Isthmus during the month. We had one case of yellow fever taken off of the shipping from Guayaquil. The last case developing on the Isthmus was in May, 1906.

Very respectfully yours,
(Sgd.) WM. C. GORGAS,
Chief Sanitary Officer.

GENERAL SANITATION—CITY OF PANAMA.

The routine work of sanitation continues uninterruptedly and in a satisfactory manner. The general sanitary condition is excellent. The health condition of the city continues good, as is evidenced by the low mortality.

Of the 81 deaths credited to the city during the month, 13 occurred in Santo Tomas Hospital. No disease has prevailed noticeably. Pneumonia was responsible for eight deaths, the greatest number caused by any one disease. Varicelli was the only acute contagious disease reported.

The work of destroying rats, so far, has not been satisfactory though pushed with zeal. Only 324 rats are recorded as having been cremated during the month. This does not indicate the number destroyed, however, since many have doubtless fallen victims to the poison distributed, but which died in inaccessible places. One reason for the disappointing results was the inferior traps used, the only kind on hand. Owing to the climatic effect on the wire-caged traps the doors were rusty and would not close behind the rat when entering the trap, so after partaking of the bait offered he quietly walked out again. Within a few days, spring traps, now ordered, will have been secured, and better results are expected.

The construction of new houses continues unabated, seventeen permits for such having been issued during the month. The construction of these are being scrutinized with a view of having them made as near ratproof as possible.

COLON, CRISTOBAL AND MOUNT HOPE.

The total number of deaths reported for this station is the least since the work of sanitation in this city was started, there being only 26 for the month.

The death charged to Mount Hope was that of an unknown and was found in the woods quite a distance from the town site.

Of the three charged to Cristobal, one was a baby eleven months old, the death being probably due to marasmus; the second to a condition calling for surgical interference and the third to acute nephritis with malarial complications.

It will be noted from the above, that as far as Cristobal and Mount Hope are concerned, there were no deaths which could be rightly attributed to unhealthful conditions of the district.

Colon: The number of rats caught was very small, there being only 368 trapped in the twenty days the work was carried on.

The reasons for not catching more rats are due to the fact that the people objected to the spring trap on account of their chickens being caught therein, and also to the fact that we had not distributed poisons as widely as will be done during the coming month, as it was deemed advisable to give the people sufficient notice regarding this procedure so they could keep their children and pet animals away from it.

The number of water and sewer connections show a slight increase over last month, but the actual work under way is far in excess of what it has been at any time since the work of connecting houses was started, and as there are approximately only 316 houses remaining in the sewer district, that are not connected with the sewer and water mains, the prospects for an early completion of this work are good.

The work on grading of swamp No. 3 at Mount Hope is progressing satisfactorily and will be completed during the early part of the coming month. Into this swamp we hope to be able to take all the sewerage from the Mount Hope district.

SANITATION—CANAL ZONE.

Work was started at Porto Bello on March 2. Very little sanitary work had been accomplished at that station previous to that date, and natural conditions were as favorable to the propagation of malaria as were those of the various camps in the Canal Zone during 1904. As there is very little malaria in the Canal Zone at the present time, the malarial sick rate at Porto Bello is high as compared with the Zone rate. During the month all quarters occupied by laborers were screened. Some infection is contracted across the bay in the native town. The source of water supply has been changed for a safer supply, and arrangements have been completed for supplying the entire working force with boiled water for drinking purposes. A system of garbage collection has been installed, and the garbage collected daily is disposed of out in the bay. A more complete system of pail closets has been erected. Also the barracks have been screened and installation of sewer started.

The ground near the settlement has been sub-drained, so as to prevent anopheles breeding places occurring near there, even in the rainy season, and the jungle near the settlement is being cleared away. It will be necessary to make a larger clearing around the settlement as the anopheles will otherwise work their way through the brush and from there to the buildings. Several streams which empty into the bay near the camp are favorable anopheles breeding places and will need attention.

In view of the high malarial sick rate at this camp it has been deemed advisable to keep our force employed on anti-malarial work. Gorged adult anopheles in the barracks have been carefully caught each day. The following decrease was noted: From March 5th to 20th from 50 to 60 adults (anopheles—alba manus) were obtained, daily. From March 20th to 25th, about 40 per day, and since that date an average of two have been found daily in the barracks. In one tent that was properly screened with mosquito protection wire at both ends and at the sides, as many as six anopheles were captured each morning. It was found that they were entering through a small crack in the floor. Said floor was raised three feet from the ground. This undoubtedly indicates that the anopheles present near the camp are still numerous although the breeding places in the immediate vicinity were removed several weeks previous to the observations referred to. Also some of the laborers infected at Porto Bello have returned to the Canal Zone to remain, and such infection will affect the malarial sick rate of the Zone.

In the Gatun district during the past rainy seasons our malarial sick rate has been relatively higher than most other stations and during the month, drainage work has been started on the swamp between the laborers camps and the Panama railroad track. The ground water is now six inches below the level of the bottom of this swamp. Arrangements have been made to lower the elevation of the exit through the adjacent railroad culvert about four feet more, so as to make possible the tapping of low spots by lateral branch ditches. This will probably aid in the destruction of all anopheles breeding places that affect the laborers camps at Gatun proper during the rainy season. At the spillway camp the fills being made are of large sanitary value from an anti-malarial point of view.

The Gorgona district: In the native town all native houses were inspected and house yards cleaned up. The general sanitary condition in this town is somewhat better than during the previous month. The sewer pipe for sewers in the native town is on the ground ready for installation. During the month the entire Gorgona watershed was inspected. There are no persons living thereon. One person was prosecuted for trespassing on the watershed.

In addition to the routine work at this station a new type of garbage incinerator has been constructed at Mamei, screening repairs were made on 54 houses, the swamp near the native town has been drained, and the filling of the depression between Gorgona encampment and the gravel pit track is rapidly nearing completion. During the month, laborers from other parts have been quartered in this district. The sick camp has been abolished and all sick cases are being sent to the terminal hospitals. There has been a slight increase of malaria as compared with the previous month.

At Matachin the native villages are being kept in better sanitary condition. Early in the month both adult stegomyia and anopheles appeared at the American settlement. The houses affected were fumigated. Since that period daily inspections have been made but no more adult mosquitoes have been noted. The probable original source of the adult anopheles was finally located after the jungle near the Canal bed was cleared away. There are now located at Matachin 21 railroad cars in which laborers sleep. Generally laborers living under similar conditions are careless about contracting malaria. Although the population at Matachin is much larger now than it was a year ago the anti-malarial work being accomplished is very successful in keeping down the sick rate.

At Bas Obispo the valley between the American quarters and Camp Elliott has been permanently drained, and the United States Marine Camp drainage system has been completed. The Santa Cruz camp, which is the largest laborers camp in the Zone, has been cleared of vegetation and the ground prepared for a horse mower. At Chagres camp a permanent drainage system has been installed. Boiled water is being used for drinking purposes in the Canal Cut near Bas Obispo, and no further trouble is had with the laborers because of obtaining water from unsafe supplies in the vicinity. The two springs near the Canal Cut have received attention. One was closed up and the other fenced in.

At Las Cascadas the ditches in the neighborhood of Whitehouse and the Italian camp are being lined with stone and when completed will need no further attention. Thereafter the only possible anopheles breeding places near these camps will be the ditch that parallels the railroad and which has but little grade.

A McCall incinerator closet, in which the solid and liquid substances are wholly consumed by incineration, was located at Whitehouse on March 14, and is working in a satisfactory manner.

At Culebra the drainage of the Rio Grande camp and vicinity has received attention as well as the general drainage systems of Culebra hill. The permanent drainage work of Culebra hill proper, including Rio Grande, will be completed by about the end of April or before the rainy season arrives. The drainage problems in the scattered-out native settlements is a serious matter. As many of our employes live at these settlements, and as the Isthmian Canal Commission camps at Culebra will soon be free of anopheles, the future malarial cases will come mostly from the native villages and isolated shacks.

In the Paraiso district the work done has been cleaning of ditches, oiling, making new ditches and grading. The Canal Cut where mosquitoes breed in large numbers during the dry season, has required constant attention. The ditches at the bottom of the Cut have to be cleaned out constantly, and several times our brigade at Paraiso has had to be employed in order to cope with the situation. The swamp above the native village has been drained. The watershed of "Paraiso Spring" has been fenced in. The water from this spring is used throughout the Zone, as well as at Colon and Panama, and also supplies the water at the bottling works close by. A large area between the cemetery and Monatown is being cleared by contract Later a mowing machine will be used at this place.

The district of Pedro Miguel and Miraflores: Here, as in Paraiso, it has been necessary to give continuous attention to local anopheles breeding places, and in both places the results of such work have been highly satisfactory. Also it has been necessary to watch the laborers sleeping cars and to fumigate the same The grounds about the Miraflores laborers camp are being tiled, and this will leave the river passing near the camp as the only remaining source of anopheles in future dry seasons. A careful inspection of brackish waters nearby shows the presence of anopheles larvæ therein. Next month a report will be made indicating the strength of salt solution referred to. Trenches are already dug for the installation of the sewer system at Miraflores. A large number of pit closets have been located at this camp and closets have been located in the Canal Cut near the work now going on.

At Ancon the drainage systems at Santa Rosa and near the European laborers camps have been completed, and satisfactory progress is being made in filling in the swampy ground below Hotel Tivoli.

At La Boca an area of 17 hectares on low ground in front of the new American settlement has been cleared off and the swamp in front of the mess hall is being filled in. The edges of the large salt marsh between Ancon and Sosa hill will need constant attention as soon as the rainy season arrives.

Since March 1, the sanitary work being done for native towns and native settlements, has been accomplished by special brigades under the direction of the District Sanitary Inspectors. This work consists of general sanitary policing, inspection and removal of water containers, care of closets, disinfection and garbage removal. The detailed cost of this work is kept separated from that of work done for the Isthmian Canal Commission.

MOSQUITO WORK AND MALARIA.

During the month there has been very little rain on the Pacific slope and this has been generally of advantage to the anti-malarial work except in the Canal Cut from Pedro Miguel to Cucaracha. On the Atlantic slope, and more especially at Porto Bello, there has been sufficient rain to keep many anopheles breeding places supplied with water. The Chagres river valley above Bas Obispo has received very little rainfall, and this river, as well as its branches that pass near the camps in the Zone, is about as low and stagnant as it has ever been since sanitary work was started in 1904.

Such conditions are especially favorable to the development of anopheles, and make necessary extra work for this division. For the three months ending March 31, 1908, the average weekly malarial hospital sick rate in the Canal Zone has been less than one-third of the average weekly rate during the corresponding period ending March 31, 1907, and moreover the highest weekly rate of any week so far this year was only about one-third of the corresponding week of 1907. During the past year the months when there was the least malaria fever in the hospitals were May and December. Generally there is the least malaria in the month of May. The malarial rate for March, 1908, was about one-half of the malarial rate for May, 1907.

At the present time there are three inspectors who are giving their entire time to locating anopheles and stegomyia breeding places and the system of check inspection and locating of anopheles breeding places before the larvæ have time to reach the pupil stage of development is giving excellent results in a practical way. At the Cocoli camp, located about two to three miles from Corozal station, the laborers are living in tents and this camp is producing 87 per cent. of the malarial cases in the Corozal district. It is proposed to have these tents made mosquito proof at an early date.

QUARANTINE SERVICE.

During the month plague has become epidemic in Guayaquil and it has been necessary to place in effect regulations against that port to prevent the introduction of this disease. The baggage of all steerage passengers is disinfected and that of the cabin class also, if it is deemed necessary. All passengers embarking are carefully examined immediately before sailing of the vessel, and a thorough fumigation is carried out for the purpose of destroying any rats that might have gained access to the ship at that port.

Cargo received from there consists of hides. Before such can be shipped, they must be poisoned and kept in rat-proof warehouses; two of which have been constructed for this purpose and all hides shipped from Guayaquil are handled by these two companies. The other principal article of export is cocoa. This is not a rat food and is kept in clean warehouses and is placed in new bags one or two days prior to shipment.

On account of the spread of infection in Guayaquil, and for the purpose of obtaining accurate and reliable information concerning the status of the epidemic, the Chief Quarantine Officer was directed to proceed to Guayaquil for the purpose of inspection. During this visit there was prepared, at the request of the Ecuadorian Government, a general scheme for immediate measures to be instituted for the purpose of combating the disease. These have been promulgated and work is now proceeding along these lines under competent direction.

President on Anarchism.

President Roosevelt sent the following message to Congress on April 9:

> I herewith submit a letter from the Department of Justice which explains itself. Under this opinion I hold that the existing statutes give the President power to prohibit the postmaster-general from being used as an instrument in the commission of crime, that is, to prohibit the use of the mails for the advocacy of murder, arson or treason, and I shall act upon such construction.
>
> Unquestionably, however, there should be further legislation by Congress on this matter. When compared with the suppression of anarchy every other question sinks into insignificance. The anarchist is the enemy of humanity, the enemy of all mankind, and his is a deeper degree of criminality than any other. No immigrant should be allowed to our shores if he is an anarchist, and no paper published here or abroad should be permitted circulation in the country if it propagates anarchistic opinions.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, April 15, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Banks, Walter
Billindslea, Loy E.
Brady, Beo. C.
Carrington, Hamble
Cowan, F. J.
Crane, Mrs. R. W.
Curtis, A. S.
Driscoll, Geo. E.
Guill, Enos
Havens, H. H.
Higbio, F. S., Engineer
Johason, Alvia S.
Kincade, G. M.
La Rock, Herbert
Manooce, Frank
Moore, Mrs. Wade
Morris, Harry
Nelson, C. J.
Palmer, Jns. W.
Parris, Richard
Peterson, F. W.
Pierson, Mrs. G.
Rich, Hampton
Round, R. F.
Shea, Wm. B.
Stoelker, Robt. K.
Trippin, Eugene
Valentine, A. T.
Wallace, Mr., Construction Dept.
Walsh, F. M.
Waters, H. J.
Wells, John A.
Witmer, Wm. R.
Woodford, John
Woodward, Chas.
Wright, Mrs. Laval M.

Clearing Ground at Gatun.

Bids will be received at the office of W. G. Tubby, Purchasing Agent on the Isthmus, up to 2.30 p. m., April 17, 1908, at which time they will be opened in public, for the clearing of grass, brush, stumps and trees from approximately twenty-four (24) acres of ground adjacent to the Isthmian Canal Commission Hospital at Gatun, the exact location and extent of which will be pointed out by the local Sanitary Inspector. Work must be commenced April 25 and completed June 25, and must be performed in accordance with specifications to be obtained at the office of the Chief Sanitary Inspector, Ancon, or at the office of W. G. Tubby, Cristobal. The successful bidder must furnish bond or cash deposit in the sum of one-hundred and fifty (150) dollars, U. S. Currency, as guarantee that the work will be properly performed and to reimburse the Commission for the loss of or damage to any tools loaned. Proposals should be enclosed in sealed envelopes marked "Proposal for clearing ground at Gatun." The right is reserved to reject any and all bids.

Civil Service Examination.

An examination for the position of stenographer and typewriter, in the service of the Isthmian Canal Commission, will be held at Ancon, commencing at 9 a. m. Monday, April 20. Further information may be had upon application to Mr. John K. Baxter, Secretary Isthmian Civil Service Board, Ancon, Canal Zone.

Concert.

By the I. C. C. Band at Bas Obispo, C. Z., Sunday, April 19, 1908, at 2.30 p. m.:

PROGRAM:

1	March	*Under the Double Eagle*	Wagner
2	Waltz	*My Lady Laughter*	Blake
3	Selection	*Merry Widow*	Lehar
4	Melodie Espressivo	*Tendresse*	Ravina
5	Piccolo solo	*Canary Polka*	Read

OLIVRR KIMBALL

6	Flower song	*Hearts and Flowers*	Tobani
7	*a* Intermezzo	*Nippono*	Lincoln
	b Danse characteristic	*Thesis*	Losey
8	Caprice	*The Whistler and His Dog*	Pryor
9	Overture	*Schauspiel*	Bach
10	March	*Dunlap Commandery*	Hall

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Cristobal, Wednesday evening, April 22.

Concert.

By the I. C. C. Band at Cristobal, C. Z., Wednesday evening, April 22, at 8.15.

PROGRAM.

1	March	*Sheridan Sabres*	St. Clair
2	Selection	*Merry Widow*	Lehar
3	Mazurka	*Heather Bells*	Losey
4	Flower song	*Venetian Roses*	Bennett
5	Song for cornet	*A Dream*	Bartlett

CHAS. E. JENNINGS.

6	Selection	*Reminiscences of Scotland*	Godfrey
7	Waltz	*Dream of Heaven*	Bauer
8	Overture	*French Comedy*	Kela Beler
9	Descriptive	*The Racket at Gilligan's*	DeWitt

Synopsis—The guests gather at Gilligan's; after their arrival Gilligan sings a song, which is followed by a country dance; the star singer then renders a touching ballad, after which the bagpipes strike up. "Are ye's all ready?" shouts Gilligan. "Yes." "Then fire away." A regular "welt the floor" and "slip" time follows: a sand jig comes next, and the festivities are completed by all singing "Saint Patrick's Day in the Morning."

10	March	*Bersagleiri*	Eilenberg

CHAS. E. JENNINGS.
Musical Director.

The next concert will be given at the Hotel Tivoli, May 3.

OFFICIAL CIRCULARS.

Assistant to the Chairman and Chief Engineer.

CIRCULAR NO. 163:

Effective this date, Mr. M. B. DePutron is appointed Assistant to the Chairman and Chief Engineer. His duties will be to conduct correspondence, sign official papers and assist the Chairman and Chief Engineer as the latter may direct.

Mr. C. A. McIlvaine is promoted to the position of Chief Clerk. He will report to the Assistant to the Chairman and Chief Engineer and act in the latter's place in case of absence.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, April 10, 1908.

Good Friday a Holiday.

CIRCULAR NO. 162:

As far as consistent with the transaction of necessary public business, Friday, April 17, will be observed as a holiday throughout the Canal Zone.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, April 11, 1908

Physical Examinations.

Very often employes desire physical examinations made by the Medical Examining Board at Ancon Hospital, and apply at hours when the members of the Board are at different locations and find it difficult to get together. In the future, it is requested that all persons wishing this accommodation apply at 2 p. m. on Tuesdays and Thursdays of each week.

By direction of the Chief Sanitary Officer.

C. C. MCCULLOCH, JR.,
Executive Officer.

Transfer Invoices.

OFFICE OF DISBURSING OFFICER,
Empire, C. Z., April 6, 1908.

Circular No. 34.

TO ALL DEPARTMENTS:

Effective May 1, please arrange to have all Transfer Invoices issued by your respective departments consecutively numbered, beginning with Number One and continuing until June 30, 1909, and effective each year thereafter, on July 1, commence again with Number One.

Respectfully,
(Sgd.) EDWARD J. WILLIAMS,
Disbursing Officer.

Approved:
(Sgd.) GEO W. GOETHALS,
Chairman and Chief Engineer,

Operations of Garden and Truck Farms.

OFFICE OF DISBURSING OFFICER,
Empire, C. Z, April 11, 1908.

CIRCULAR NO. 35.

TO ALL CONCERNED:

The following account, under General Account 1, Classified Expenditures, is hereby created, effective May 1, 1908:

584. Operations of Gardens and Truck Farms.

To this account will be charged all labor, material and implements used in the operation of gardens and truck farms of the Commission.

This account will be credited with the value of the product of these gardens and truck farms.

(Sgd.) EDWARD J. WILLIAMS,
Disbursing Officer.

Approved:
(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Isthmian Baseball League.

Scores, April 12, 1908:

At Ancon Park: M. P. & M., 10; Marines, 3.
At Empire Park: Culebra, 9; Kangaroos, 3.
At Gorgona Park: Ancon, 14; Gorgona, 1.

STANDING OF THE LEAGUE.

April 13, 1908:

	Played.	*Won.*	*Lost.*	*Per cent.*
Ancon	15	13	2	867
Empire	15	12	3	800
M. P. & M	16	12	4	750
Culebra	16	8	8	500
Kangaroos	16	6	10	375
Gorgona	15	2	13	133
Marines	15	1	14	067

To be played April 19, 1908:

At Ancon Park: M. P. & M. vs. Kangaroos.
At Empire Park: Ancon. vs. Marines.
At Gatun Park: Gorgona vs. Empire.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

Arrangements have been completed for a Y. M. C A. Athletic Meet at Gorgona on Memorial Day. Four strong athletic teams are assured from the Culebra, Empire, Gorgona and Cristobal associations, respectively, and each team will be backed by loyal community spirit. To develop team spirit, rather than to promote individual gain, will be a controlling purpose. Medals of special design will be awarded as prizes. A special contest event among local divisions of employes at Gorgona will be the climax of local interest. There will be the regular league ball game in the afternoon, together with band music. Further announcements will be made giving list of events, special train service and additional attractions.

The contract has been let for reading room periodicals for the new fiscal year. Subscriptions have been renewed for last year's entire list excepting a very few of the least popular. In addition, several new subscriptions have been taken, chiefly for daily papers from different sections of the States. A total of about one hundred publications is received regularly by each association.

An entertainment company composed of musical comedians, with reader and soprano, has been booked for the last week of April and first week of May

In the April number of *Association Men* is a brief illustrated resumé by Mr. C. J. Hicks of New York, covering his visit of a week with the Y. M. C. A. on the Zone.

The final standing of the Y. M. C. A. Basket-ball League was follows:

Team	*Won*	*Lost*	*Percent*
Empire	9	3	750
Cristobal	8	4	667
Culebra	5	7	417
Gorgona	1	11	083

The present standing of the Second Bowling League is as follows:

Team	*Played*	*Won*	*Lost*	*Percent*
Empire	24	19	5	791
Cristobal	27	15	12	555
Culebra	30	14	16	467
Gorgona	21	3	18	143

CRISTOBAL.

A three-men team bowling tournament is being played by the following teams:

Commissary, Strong, captain; Carpenters, Wolnitzek, captain; P. R. R. Shops, Whitley, captain; Mount Hope Stores, Porter, captain; "South Paws," Gilmore, Captain; M. & S. Benedicts. Hageman, captain; M. & S. Bachelors, DeGrummond, captain; Labor and Quarters, Burke, captain; Fire Department, Koerner, captain; Non-employes, Pouton, captain.

The gymnasium class exercises on Tuesday and Friday nights are attracting an increasing number of men. Additional zest is given to the work by the introduction of music for all the class drills.

The athletic squad is getting under way for the Decoration day meet. Cristobal will have a much larger representation than 'at any former meet. The following men are trying for the team: Porter, Simka, Weller, Herz, J. Thomas, Rish, Borg, Luce, Drake, E. Thomas, Petrosky, Bartlett, Pring and Stewart.

The Sunday afternoon services arrauged by the Sunday Club are keeping up their interest despite the many other attractions. A sacred concert will be given on Easter Sunday.

A class in shorthand has been organized under the direction of Mr. H. T. Kenney.

EMPIRE.

The Empire Basket Ball team won the championship of the Canal Zone, winning ten games out of twelve games played and closed the season by winning two games straight from Cristobal, their strongest opponent. They also beat Culebra last Saturday evening in an exhibition game, 39 to 26.

There is great interest in the pool tournament now on. The following are the three highest men: McKeever, Wotts and Kennedy.

CULEBRA.

Saturday morning the Culebra boys again won two of three bowling games from the Gorgona boys. In the evening a picked team of men rolled the boys' team, much to the amusement of the audience. Bowling has become very popular among the boys, and our team of youngsters has won seven of nine games rolled.

Mr. William Winters made a remarkable record in this week's bowling score, having an average of 200 2-11 in 11 games rolled.

GORGONA.

The standing in the chess tournament is as follows:

	Won	*Lost*
Boyer	22	3
Ashton	16	8
Clements	12	8

The standing in the local bowling league on Saturday night, April 11, was as follows:

Teams—	*Games.*	*Pinfall.*
Machinists	12	5,368
Moulders	12	5,280
Carpenters	12	5,107
L., Q. and S.	12	5,084
Transportation	12	4,991
Boilermakers	12	4,988
Miscellaneous	12	4,927
Jadwin's Office	12	4,925
Plumbers	12	4,890
Clerks	12	4,826

High bowling scores for the week are: Getman, 219; M. Bullard, 206; MacCon'y, 204; MacCormack, 203; Wilson, 200.

Individual averages are: Wright, 176.5; Mac Con'y, 158.5; Bullard, 155; LaRose, 153.9; Hayes, 152.3.

COMMISSARY DEPARTMENT.

NOTICE.

On and after Sunday, April 5, the Commissaries will not be open for business on Sundays or Legal Holidays. Purchases should be made on Saturday or the day preceding a holiday.

JOHN BURKE,
Manager.

COMMISSARY PRICES

For week ending April 14 :		*Price.*
FRESH MEATS.		CTS.
Beef—Sirloin roast	per lb	28
Rump roast	do	28
Porterhouse	do	28
Rib-roast, short-cut, (not under 3½ pounds	do	20
Rib-roast, second cut	do	17
Chuck-roast	do	13
Soup	do	7
Stew	do	12
Corned	do	10, 12 14
Suet	do	*4
Steaks—Sirloin	do	28
Porterhouse	do	28
Rump	do	28
Tenderloin	do	28
Round	do	18
Veal—Cutlets	do	24
Short-cut chops	do	24
Loin	do	23
Entire forequarters	do	11
For stewing	do	11
Mutton—Entire forequarters	do	9
Short-cut chops	do	20
Leg	do	†18
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	30
Legs	do	†28
Pork—Cuts	do	20
MISCELLANEOUS		
Livers—Beef	per lb...	10½
Livers—Calf	each...	60
Sausage—Pork	per lb...	16
Bologna	do	15
Frankfurter	do	15
Lieberwurst	do	15
Sweet bread—Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues	per lb...	24
Ox tongues	each...	90
POULTRY AND GAME.		
Chickens, dressed (milk-fed),	each...	†1.50
Chickens, roast	do	1.15
Fowls	do	1.10
Ducks, fatted (fancy)	do	1.15
Suckling pigs	do	4.90
Turkeys	per lb...	26
Broilers (chicken frys)	each...	90
Squabs	do	35
Eggs, fresh	per doz...	28
Geese (10 lbs.)	each...	2.00
CURED MEATS AND LARD		
Bacon—Strips	per lb...	23
English breakfast, sliced	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45
Whole, Ferris	do	19
Tropical	do	18
DAIRY PRODUCTS.		
Butter—prints, prime quality	per lb...	40
Ice cream	brick	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	33
Gouda	do	34
Edam	each...	1.05
Camembert	do	28
Pinxter's	tin...	22
Buttermilk	bot...	**15
FRUITS AND VEGETABLES		
Pineapples	each	16
Oranges	per doz...	12
Grape Fruit	each...	2½
Lemons	per doz...	15
Apples	per lb...	†7
Apples, fancy table	per lb...	10
Beets	per lb...	†6
Limes	bun...	*80
Dandelions	per lb..	10
Celery	bunch...	30
White potatoes	per lb...	3
Cabbage	do	3
Onions	per lb ..	3½
Lettuce	do	15
Cucumbers	per lb...	28
Sweet potatoes	do	2½
Turnips, Rutabagas	per lb...	4½
Yams	do	2½
Carrots	per lb...	5½

* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from Commissaries*

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	*New Price.* CTS.
Salmon, R. S., flat	1s	20	24

NEW ARTICLES		*Price.* CTS.
Oil, cotton seed, Choice Summer yellow	5-gal tin	2.85
Nainsook, soft, No. 279, stock No. 41,742	yard...	35
Nainsook, soft, No. 2592, stock No. 41,743	do	25
Linon, India, No. 950, stock No. 41,744	do	35
Lawn, Persian, No. 590, stock No. 41,745	do	45
Allover, Hamburg, stock No. 41,746	do	40
Knives and forks, No. 500, stock No. 41,747	set...	1.35
Suits, pajama, stock No. 41,748	each...	2.50
Handkerchiefs, stock No. 41,749	do	9
Nainsook embroidery, stock No. 41,789	yard...	28
Thimbles, No. 351, stock No 41,791	each...	2
Hangers, No. 315, stock No. 41,792	do	3
Fruits, preserved, assorted, Libby McNeill & Libby	tin...	21
Dimities, black and white, stock No. 41,756	yard...	25
Dimities, blue and white, stock No. 41,757	do	25
Cambric edges. stock No 41,758	do	30
Insertion, cambric, stock No. 41,759	do	15
Insertion, cambric, stock No. 41,761	do	20
Razors, stock No. 41,762	each...	1.30
Padlocks, Yale, No. 813, stock No. 41,763	do	80
Padlocks, Yale, No 823, stock No 41,764	do	85
Padlocks, Yale, No. 833, stock No. 41,765	do	1.00
Padlocks, Yale, No. 853, stock No 41,766	do	1 20
Padlocks, Yale, No. 873, stock No. 41,767	do	2 25
Olive Oil, Regalia, 24-2 Bots	bots...	40
Olive Oil, Universal, 24-2 bots	do	35
Mirror's stand No 88.094, stock No. 41,768	each..	90
Mirror's stand, No. 88,667, stock No. 41,769	do	60
Mirrors, hand, No. 88,241, stock No. 41,771	do	20
Irons, sad, idv. 6 lb. stock No. 41,772	do	25
Oil, olive, Morels, large	bot...	45
Olives, Spanish, 2 gal. each	keg..	2,20
Embroidery, nainsook, stock No. 41,773	yd.	10
Lawn, Persian, 33 in. stock No. 41,774	do	32
Batiste, 32 in. stock No. 41,775	do	32
Mull de Paris, 32 in. stock No. 41,776	do	32
Mull de Paris, 32 in. stock No. 41,777	do	45
Dotted Swiss, 32 in. stock No. 41,778	do	50
Dotted Swiss 30 in. stock No. 41,779	do	38

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ISTHMIAN CANAL COMMISSION.

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Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
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Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell. Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
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Harry E. Bovay, Chief Clerk

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Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. Fleetwood Gruver, Quarantine Officer, Panama.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

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R. E. Wood, Assistant Manager, Culebra
S. C. Klauber, Chief Clerk.
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Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

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H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

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W. G. Tucker, Secretary, Colon.

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John Burke, Manager, Cristobal.
P. T. Murphy, Asst. Manager, Cristobal.

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Headquarters, Washington, D. C., U. S. A.
Lieut.-Col. H. F. Hodges, U. S. A., General Purchasing Officer.
C. E. Dole, Chief-Clerk.

F. C. Nordsick, Asst. Purchasing Agent, 24 State Street, New York City.
S. E. Redfern, Asst. Purchasing Agent, Custom House, New Orleans, La.
W. G. Tubby, Purchasing Agent on the Isthmus, Cristobal, Canal Zone.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON

Prinz Joachim	H.-A	Saturday	April 11
Advance	P. R.R.	Monday	April 13
Panama	P. R.R.	Saturday	April 18
Sarnia	H.-A	Saturday	April 18
Orinoco	R.-M	Saturday	April 18
Allianca	P. R.R.	Thursday	April 23
Prinz Aug. Wilhelm	H.-A	Saturday	April 25
Finance	P. R.R.	Tuesday	April 28
Prince Sigismund	H.-A	Friday	May 1
Atrato	R.-M	Saturday	May 2
Esperanza	P. R.R.	Monday	May 4
Advance	P.R.R.	Saturday	May 9
Prinz Joachim	H.-A	Saturday	May 9
Panama	P.R.R.	Thursday	May 14
Pr. Eitel Friedrich	H.-A	Friday	May 15
Trent	R.-M	Saturday	May 16
Allianca	P.R.R.	Tuesday	May 19
Prinz Aug. Wilh'lm	H.-A	Saturday	May 23
Finance	P. R.R.	Monday	May 25
Prinz Sigismund	H.-A	Friday	May 29
Tagus	R.-M	Saturday	May 30

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon

FROM COLON TO NEW YORK

Prinz Aug. Wilhelm	H.-A	Tuesday	April 14
Finance	P. R.R.	Wednesday	April 15
Esperanza	P. R.R.	Monday	April 20
Prinz Sigismund	H.-A	Tuesday	April 21
Atrato	R.-M	Tuesday	April 21
Advance	P. R.R.	Sunday	April 26
Prinz Joachim	H.-A	Tuesday	April 28
Panama	P. R.R.	Friday	May 1
Pr Eitel Friedrich	H.-A	Tuesday	May 5
Trent	R.-M	Tuesday	May 5
Allianca	P. R.R.	Wednesday	May 6
Finance	P. R R.	Monday	May 11
Prinz Aug. Wilh'lm.	H.-A	Tuesday	May 12
Esperanza	P R.R	Saturday	May 16
Tagus	R.-M	Tuesday	May 19
Advance	P. R R.	Friday	May 22
Prinz Joachim	H.-A	Tuesday	May 26
Panama	P.R.R.	Wednesday	May 27
Allianca	P R R.	Monday	June 1
Magdalena	R.-M	Tuesday	June 2
Finance	P.R.R.	Saturday	June 6

FROM NEW ORLEANS TO COLON

Ellis	U.F.C.	Saturday	April 11
Preston	U.F.C.	Saturday	April 18
Harry T. Inge	U.F.C.	Saturday	April 25
Ellis	U.F.C.	Saturday	May 2
Preston	U.F.C.	Saturday	May 9
Harry T. Inge	U F.C.	Saturday	May 16
Ellis	U.F.C.	Saturday	May 23

FROM COLON TO NEW ORLEANS

Harry T. Inge	U.F.C.	Tuesday	April 14
Ellis	U.F.C.	Tuesday	April 21
Preston	U.F.C.	Tuesday	April 28
Harry T. Inge	U.F.C.	Tuesday	May 5
Ellis	U.F.C.	Tuesday	May 12
Preston	U.F.C.	Tuesday	May 19
Harry T. Inge	U.F.C.	Tuesday	May 26

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD

Orinoco	R.-M	Tuesday	April 28
Atrato	R.-M	Tuesday	May 12
Trent	R.-M	Tuesday	May 26
Tagus	R.-M	Tuesday	June 9

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's Line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company despatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Floridian*, April 26.

The following steamers have recently arrived at La Boca: April 4, *Aztec* from Central America; April 6, *Menes* from North Pacific ports and *Peru* from Valparaiso; April 7, *Newport* from San Francisco. Departures were: April 4, *Chile* for Valparaiso; April 7, *Peru* for San Francisco; April 10, *Mapocho* for Valparaiso.

CANAL RECORD

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The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

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THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Chairman's Monthly Report.

The report of the Chairman of the Isthmian Canal Commission for March is published in full in other columns of this issue of the RECORD. It gives, as usual, specific information as to the progress of Canal construction in all divisions of the work. It shows that the total excavation by steam shovels in the Culebra division during the month, was 1,295,205 cubic yards, an increase of nearly 47,000 cubic yards over the amount excavated in February. Of this amount 1,216,264 cubic yards were removed from the Canal prism and 74,621 cubic yards from the Camacho and Obispo diversions.

Compared with the work performed during the corresponding month of 1907, the total excavation by steam shovels in the Culebra division was about 50 per cent. greater, and the average per shovel per day was 59 per cent. greater; the amount of rock was 12 per cent. greater, and the amount of earth 12 per cent. less.

The number of working days this year was 26 against 25 in the same month last year, and the average number of steam shovels working during the month was 42 this year against 43 last year; the average amount of excavation per steam shovel per day this year was 1,175 cubic yards against 741 cubic yards last year, and the average amount excavated per shovel per month was 30,554 cubic yards this year against 18,530 last year.

The rainfall was insignificant during both months under comparison and the average number of laborers at work during the month was 326 less than the number at work in February.

At the Gatun lock site seven steam shovels were at work during the month, excavating 219,561 cubic yards, of which amount 16,798 cubic yards were taken from the site for the cableways.

At the Gatun dam and spillway three shovels worked throughout the month and three additional shovels worked for a portion of the month, excavating the total amount of 155,037 cubic yards. About 11 acres were cleared on Gatun island, and the material was burned.

In the relocation of the Panama railroad there were laid during the month 2,480 feet of permanent track, making a total of 28,052 feet to date. The permanent track was partially ballasted for a distance of 2,800 feet near Gatun.

There were received during the month 304 European and 164 West Indian laborers, a total of 468. The excess of immigration over emigration was 1,651, of which all but 61 were of the laboring class. There was a decrease of 189 men in the silver force actually working on the last day of the month as compared with the previous month. The necessity for the importation of additional men in the face of a slight decrease in force indicates that laborers are constantly dropping from the ranks for various reasons.

There were employed in the United States during the month 70 men, and on the Isthmus 341 gold men were employed or re-employed. There was a net decrease of 14 men in the gold force as compared to that of the previous month.

Subsistence operations showed a decrease in the expenses of $752.61, and an increase in total revenues of $925.84, as compared with the previous month. The increased cost of supplies, however, caused a loss of $22.05 in the operations as compared with an estimated profit of $5,896.65 during the previous month.

The Paraiso Cut-off.

Work on the Paraiso cut-off has been completed, and the first passenger train was run over it on April 14. The new line leaves the old line of the Panama Railroad about one-quarter of a mile north of Pedro Miguel station and runs along the east side of the Canal prism to within about a quarter of a mile of the shops at Paraiso, where the new Paraiso station is located. From this point it crosses the Canal prism on a trestle, about 500 feet long, and connects with the present line of the railroad about one mile north of the old Paraiso station. The total length of the cut-off is about one and three-quarter miles and was made necessary as work has begun on the excavation for the lock at Pedro Miguel, part of the site for which was occupied by the old trestle of the railroad across the Canal prism.

That portion of the present line of the Panama Railroad now in use between the Lirio planing mill, near Culebra, and Pedro Miguel, was built about ten years ago. at the expense of the New French Canal Company, as the original roadbed of the railroad, which was built between 1850 and 1855, had slid into the excavation made by them for the Canal. The line of the cut-off follows the old original roadbed of the railroad from Pedro Miguel station to the new trestle across the Canal prism.

March Police Report.

The March report of the Chief-of Police of the Canal Zone shows an increase in the number of arrests for the month, 586 having been made in March as compared with 511 in February. The 586 arrests were for 47 different offenses, and 43 different nationalities were represented. They were divided among the different towns of the Zone as follows:

Ancon	27	Las Cascadas	37
Las Sabanas	7	Bas Obispo	12
La Boca	34	Gorgona	79
Corozal	11	San Pablo	16
Pedro Miguel	44	Tabernilla	40
Paraiso	16	Bohio	13
Culebra	51	Gatun	34
Empire	73	Cristobal	92
Total			586

There were 147 prisoners in the district jails on March 31, an increase of 38 for the month. The Coroner held inquests on 14 cases of accidental deaths, three deaths being caused by drowning and five by railroad accidents.

The number of convicts at the Zone penitentiary on March 31 was 90, an increase of one for the month. The value of the work performed by the convicts on roads, etc., was $1,384.40. The total effective police force on March 31 was 160, and the pay roll for March amounted to $17,199.89.

Slide on Relocated Panama Railroad Line.

During the night of Thursday, March 26, a slide occured at the north end of the fill which was being made just south of Gatun to connect the permanent relocated roadbed of the Panama Railroad with the line now in operation. The connection track is being constructed to enable the railroad to abandon its present line between Mindi and Tiger Hill in order that that section of territory may be used exclusively in lock and dam construction. The grade in the connection track runs from an elevation of 95 feet above sea level at Gatun to 22 at Tiger Hill. At the place where the slide occurred the elevation of the track was 90, and the original surface of the ground was 10, so that the fill at the time was 80 feet high.

The original surface on the center line of the track at this point was a very steep hillside and the top of the underlaying rock stratum varies in elevation, within a few hundred feet, from thirty feet above sea level to nearly one hundred feet below. To this fact, rather than a non-supporting bottom,

NOTES OF PROGRESS.

(*Continued*)

the slide was due. The placing of a great amount of filling, and consequently a great weight on the steep side of the hill, caused the material above the rock to slide on the rock surface and create a miniature earthquake. The low embankment carrying the temporary track, near the bottom of the high fill, was pushed several feet out of line, and the ground for a distance of nearly one hundred feet along the track, and about fifty feet in width, was pushed out and raised up from ten to twelve feet, opening numerous cracks in the ground from one to three feet wide, thirty to fifty feet long and and four to eight feet deep. The embankment sank from ten to twenty feet for a distance of two hundred feet, and destroyed two hundred and twenty feet of trestle that was being used in making the fill.

Highest Daily Shovel Records.

The subjoined table gives the highest daily records of steam shovels in the four construction districts of the Culebra Division, Department of Excavation and Dredging, for the month of March, 1908. It will be noted that some of the shovels made high records for a working day of but eight hours:

Shovel No.	Date	Location	Amount of material remov'd (cubic yards)	Kind of material
212	Mar. 3	Empire...........	2,580	rock and earth
126	Mar. 23	Empire..........	2,220	earth
227	Mar 21	Bas Obispo...	2,682	rock and earth
111	Mar. 18	Bas Obispo ..	1,872	rock and earth
202	Mar. 6	Pedro Miguel	2,040	earth
123	Mar. 4	Pedro Miguel	1,420	earth
222	Mar 28	Culebra.........	2,900	rock and earth
105	Mar. 10	Culebra.........	2,140	earth

Note.—Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dippers of a capacity of 5 cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

Cost of Manufacture on the Isthmus.

In order to make a comparison between the cost of manufacturing on the Isthmus and in the States the Mechanical Division of the Department of Construction and Engineering obtained proposals from prominent manufacturers in the United States on 500 rail clamps, 1,500 rail clamp keys, 500 bridle bars and 1,500 ring bolts. The prices obtained range from $2,618.75 to $4,233, delivered at New York. The cost of manufacturing this material on the Isthmus, based on actual work recently performed, was $2,789.06. If the additional expense of delivery on the Isthmus were to be added to the lowest bids of the American manufacturers it would bring that figure to practically the same level as that of cost of manufacture on the Isthmus.

But in order to ascertain the full cost of production on the Isthmus, the cost of housing and otherwise caring for employes at the expense of the Commission should be taken into consideration. This is not included in the $2,789.06. If it were to be added it would make the cost of production on the Isthmus considerably larger than the prices asked by the American manufacturers. It is the general policy of the Commission to make all purchases in the United States except where there is not sufficient time to do so without delaying the work, or when there is conclusive information that the most economical procedure is to do the work on the Isthmus. The result of this experiment is to show that in a case of material of the kind mentioned it is not advisable to manufacture it on the Isthmus, except in cases of emergency.

Relief for Oscar F. Lackey.

Oscar F. Lackey, employed as assistant engineer, had his back broken on November 21, 1905, while supervising the rock crushing plant at Bas Obispo. He was granted indefinite leave of absence, without pay, on March 1, 1906. On April 7 last, Senator Rayner, of Maryland, introduced in the Senate the following bill, which was referred to the Committee on Interoceanic Canals:

A Bill for the Relief of Oscar F. Lackey for Injuries Sustained by him while Acting as Assistant Engineer in the Construction of the Panama Canal.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury be, and he is hereby, authorized and directed to pay, out of any money in the Treasury not otherwise appropriated, the sum of fifty thousand dollars to Oscar F. Lackey, of the city of Baltimore, for injuries sustained by him in the performance of his duties while acting as assistant engineer of the Isthmian Canal Commission, in the construction of the Panama Canal, at Bas Obispo, Canal Zone (Panama); and there is hereby appropriated, out of any money in the Treasury not otherwise appropriated, a sufficient sum to make said payment.

Gatun Steam Shovel Work.

For the week ending April 11, the seven steam shovels working at the Gatun lock site, excavated a total of 58,304 cubic yards, car measurement, an average of 8,329 cubic yards per shovel. The best record was made by shovel No. 117, with 10,020 cubic yards, an average of 1,670 cubic yards per day. The maximum daily output of the seven shovels for the week was made on Wednesday, April 8, when 10,072 cubic yards, car measurement, were excavated, an average of 1,439 cubic yards per shovel. The highest daily record for the week was made on Tuesday, April 7, by shovel No. 117, when 2,016 cubic yards were removed.

During the same period the five shovels at the spillway excavated a total of 40,896 cubic yards, an average of 8,179 cubic yards per shovel. The maximum daily output for the five shovels was made on Friday, April 10, when 8,412 cubic yards were removed, an average of 1,682 cubic yards per shovel. The best record for the week was made by shovel No. 252, with a total of 10,044 cubic yards, an average of 1,674 cubic yards per day. The highest daily record for the week was made by shovel No. 119, on Saturday April 11, when 2,328 cubic yards were removed.

At Mindi, the two steam shovels at work excavated a total of 15,824 cubic yards for the week ending April 11, an average of 7,912 cubic yards per shovel. The maximum daily output by the two shovels for the week was on Thursday, April 9, when 2,904 cubic yards were removed, an average of 1,452 cubic yards per shovel. The best record for the week was made by shovel No. 133, with a total of 8,296 cubic yards, an average of 1,383 cubic yards per day. The highest daily record for the week by either of the two shovels was made by shovel No. 133 on Tuesday, April 7, when 1,827 cubic yards were removed.

EXECUTIVE ORDER.

Jury Trial Amendments.

Under authority vested in me by law, it is ordered:

Executive Order No. 750, dated February 6, 1908, providing for a system of jury trials in criminal prosecutions in the Canal Zone, wherein the penalty of death or imprisonment for life may be inflicted, is hereby modified by striking out of line 1 and 2, section 2, and out of line 4 and 5 of the same section, the words "collector of revenue" and inserting in lieu thereof the words "tax collector."

THEODORE ROOSEVELT.

THE WHITE HOUSE,
March 31, 1908.

OFFICIAL CIRCULARS.

Laborers' Meal Tickets.

OFFICE OF DISBURSING OFFICER,
Empire, C.Z., April 16, 1908.
CIRCULAR NO. 36.

TO ALL CONCERNED:

Effective with the March statement of operations of European Laborers' Messes and Colored Laborers' Kitchens, all of the meal tickets charged to the various divisions will be held in this office until the close of the subsequent month, (that is, March tickets will be held until the close of April), pending any claim for errors appearing on these statements. At the expiration of that time all tickets not affected by claim will be destroyed.

Respectfully,
(Sgd.) EDWARD J. WILLIAMS,
Disbursing Officer.

Approved:
(Sgd.) GEO W. GOETHALS,
Chairman and Chief Engineer.

Ten-Dollar Commissary Books.

OFFICE OF DISBURSING OFFICER,
Empire, C. Z, April 14, 1908.
CIRCULAR LETTER.

TO ALL CONCERNED:

You are advised that a stock of $10 Commissary Coupon books has been received in this office and is now ready for issue to the Departments.

Respectfully,
(Sgd.) EDWARD J. WILLIAMS,
Disbursing Officer.

No Gratuity Pay on Good Friday.

CIRCULAR NO. 164:

Good Friday is not included in the list of holidays for which gratuity pay is allowed, and pay for services on that day will be calculated the same as for Sundays

Holy Thursday will be considered an ordinary working day and payment made accordingly.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, April 16. 1908.

LEGAL NOTICE.

Circuit Court, First Judicial Circuit.

The last will and testament of M. J. Gerdes having been presented to this court, notice is hereby given that, on the 2nd day of May, 1908, at 8 o'clock a. m in the court house at Ancon, there will be a hearing when all concerned shall appear to contest the allowance of the will.

WALTER EMERY.
Circuit Court Clerk.

ISTHMUS VEGETABLE GROWING.

Results of Experiments During the Dry Season.

By Henry F. Schultz, Horticulturist.

I have been experimenting during the past two and a half months with the principal vegetables of the Temperate Zone for the purpose of ascertaining to what extent they can be grown on the Isthmus.

Gardens were started by the middle of January in three places. There had been a garden for plants at Ancon for about two years, and a part of this was set apart for vegetables. A garden of about two and a half acres was started at Corozal and another of about three acres at Empire for vegetables alone. In these were planted lima, wax and string beans, egg plant, tomatoes, cucumbers, cabbages, radishes, okra, peas, lettuce, celery and carrots and a few other minor vegetables. The garden at Empire is the most important one of the three and is producing splendid crops. The tomatoes are as good as can be produced anywhere. Tomatoes in some parts of Europe are said to be the best. I have seen those and consider the ones produced at Empire superior to them. They are uniform in size, are of excellent quality and the crop is plentiful. I have had trouble with two diseases which affect the tomato plants. One, a root disease, a sort of fungus, which eventually kills the plant. It is not very bad, only about eight or ten plants per thousand being affected by it. Another quite harmful disease is black rot—a decaying of the fruit just before it ripens. This may be peculiar to the particular variety planted, the persistent pistil of which is favorable to the breeding of the disease, as rain and dew drops adhere to it and, through its own decaying, affects the fruit itself. This can be overcome with good attention. The plants that have received a regular supply of water and good attention do not appear to suffer at all, but only those that suffer occasionally from drought.

Cucumbers, also, do especially well. Of beans of all kinds at Empire I have so far produced about a ton. There is no trouble whatever in raising them profitably here during the dry months. Peas will grow here, but will not produce an abundant enough crop. They have small pods, and I do not believe that it will pay to raise them here. Egg plants do very well but they also have a fungus disease and it may be necessary to graft them upon a native plant (*Solanum perox*) belonging to the same genus. So far the disease only attacks two or three per cent. of the plants but later it may become more serious, though perhaps it may be checked by spraying with fungicides. The plants bear very well, producing much better fruit than is obtainable at the local markets. I am planting beans now on the ground on which a crop of cucumbers has been harvested, and am setting onions on the land which has already produced a crop of beans. The different crops are planted in rotation in order to get the best results.

I do not know how some of the plants will stand the rainy season. Some varieties will adapt themselves better to climatic conditions than others. Egg plant, beans, tomatoes, radishes and cucumbers will produce, I am confident, even during the rainy season. The main trouble with cucumbers is from insects, but these can be exterminated by the use of proper remedies. It will be necessary to obtain nearly all seeds from the States every year, as they will probably give best results and it will be cheaper than to grow them here.

I have not tried melons yet, but it is possible that next year I shall take a large tract of land of about twenty acres at Pedro Miguel in case it is not needed for other purposes. I will then try melons. I know that both watermelons and cantaloupes will grow here. While most vegetables can be grown here on nearly all kinds of land only the best lands are adapted for profitable cultivation. The land at Empire is the best. I am getting better results there than at the other two places. I am afraid that the land at Corozal still contains traces of chloride because of the salt water that stood there before American occupation. The physical condition of the land varies at different places, and though it may contain in abundance all the required chemical constituents it may not be suitable to the profitable cultivation of vegetables. The garden at Empire is being enlarged to ten or fifteen acres. There have been some objections by the Sanitary Department to the use of the ground for the garden, but I understand these have been waived by Colonel Gorgas.

I have been producing vegetables for nearly a month, and all these are supplied to the different hotels. The Empire garden is in the Culebra Division, and its products go to the different hotels in that division. The Corozal and Ancon gardens belong to the La Boca Division, and their productions go to the Hotel Tivoli and to the hotels at La Boca, Corozal, Miraflores and Pedro Miguel. None are sold to private individuals. A few were thus disposed of at first but this has been stopped. The cost of production thus far has been rather high because only hand labor, and untrained men at that, has been used. The gardens were started somewhat late and the necessary implements for carrying on the work could not immediately be obtained. I am making requisition now for modern farm implements, and with these I shall be able to accomplish three or four times as much work as at present with the same force of men. A strict account of all cost is kept, and though the Corozal garden probably will not pay expenses this year, the Empire garden will come very near doing so. The one at Ancon will prove more of a financial success because it is largely devoted to decorative plants and the growing of vegetables is only a minor feature, to keep the land employed while the propagating of ornamental plants goes forward, on especially built ant-proof benches.

Chiriqui Haymakers' Association No. 1½.

The Canal Record:

Chiriqui Haymakers' Association No. 1½, of Culebra, will hold another grand assembly of the Haymakers of the Canal Zone in Fraternal Hall, Culebra, on the evening of Saturday, April 25. After the ceremonies of the evening they will enjoy a banquet at the Culebra hotel. All Haymakers are requested to be present and assist.

Edwin Tobin.
Boss Driver.

Culebra, April 16.

PERSONAL.

Mrs. Geo. W. Goethals, accompanied by her son, sailed on the *Esperanza* on April 20, for a visit of several weeks in the States.

The Tivoli Club will give a reception and dance in honor of Commissioner and Mrs. Rousseau on Monday evening, April 27, at the Hotel Tivoli. It is given on Monday evening in order not to conflict with the opening of the National Theatre in Panama, which will occur on Saturday, April 25.

Mr. Fred L. Hartigan, superintendent of Construction in the Bas Obispo district of the Culebra Division, accompanied by Mrs. Hartigan, sailed on the *Esperanza* on April 20, for a six weeks' vacation in the States.

Mr. Edward Schildhauer, Electrical and Mechanical Engineer, accompanied by Mrs. Schildhauer, sailed for New York on the *Esperanza* April 20. While in the States Mr. Schildhauer will consult with the General Electric Company in regard to the final design of the power plant at Gatun for which they have the contract.

Mr. Vaughan Cornish, of the Royal Geographical Society of London, accompanied by Mrs. Cornish, is on a visit of a few weeks to the Isthmus. He is studying the Canal mainly from a geographical point of view, and is gathering material for an article to be published in the journals of the society.

The marriage of Miss Marcia Gibson, daughter of Mr. and Mrs. C. P. Gibson of Tabernilla, and Mr. Robert M. Sands, of Culebra, Secretary to Major Wm. L Sibert, will take place at Tabernilla at 3 30 o'clock on the afternoon of April 27. They will leave next day, via New Orleans, for a twelve weeks' visit to relatives in the States, and will be at home at Culebra after Aug. 1.

Mr. Oscar C. Pickel, of the Division of Municipal Engineering, and Miss A. M. Hoyer, a Red Cross Sister connected with Santo Tomas hospital, will be married on May 2 at the residence of Mr. J. G. Holcombe at Ancon. They have known each other for many years, having first met while Mr. Pickel was a student at the University of Heidelberg from which he graduated in 1899.

Passed Assistant Surgeon F. M. Shook, U. S. N., of Colon hospital, returned to the Isthmus on the *Advance* which arrived at Cristobal on April 20.

White Teachers' Association.

The following program occupied the attention of the White Teachers' Association at Ancon on Saturday, April 11:

1. How to teach history—Mrs. Edith C. Bristol.
2. Physical culture—practical exercises; Friday afternoon and special day program—Miss Jessie S. Wilson.
3. Incentives—means of arousing interest in home studies—Mr. E L. Cook.
4. Question box—General discussion.
5. Address by Commissioner Jo C. S. Blackburn, Head of Department of Civil Administration.

Found—In forward first-class coach, train No. 6, March 31, one Nixie camera. It can be obtained by applying to J. A. Smith, Superintendent, Panama railroad, Colon, and proving ownership.

SOCIAL LIFE OF THE ZONE.

"Woman's Day" at Empire.

The third meeting of the Canal Zone Federation of Women's Clubs which took place at Empire on April 18, marked another period in the progress of the organization. Over three hundred women attended the meeting including the officers of the Federation, and the four delegates accredited from each of the nine federated clubs.

The Empire Club had been busy with preparations for the past week and the arrangements for the comfort of the guests left nothing to be desired. The Commission Club house which, by courtesy of the secretary of the Y. M. C. A. had been turned over to the women for the afternoon, made a comfortable meeting place. The business meeting was held in the reading room on the first floor. The small rooms of the second story were used by the Executive Board and special committees. Refreshments were served by a committee of "aides" on the second floor.

The visitors were received by a committee of women from the entertaining club. Luncheon was served at the Commission hotel upon arrival of the noon trains, which brought the Federation officers and the delegates. A large number of club women and their friends came on the afternoon train from Panama.

Promptly at half past one the meeting was called to order by the first vice-president, Mrs. Lorin C. Collins. The president of the Empire club, Mrs. Frank W. Miracle, made an address of welcome.

The report of the Federation Secretary, Mrs. E. Lewis Baker, was of special interest, including the reading of messages of greeting from more than sixty clubs in the States. The reading of these expressions of encouragement from club women in the States, commanded keen attention.

The reports of club work during the period since January, as presented by the president of each club, gave a satisfactory showing. The Ancon club is taking vigorous steps toward better organization in its departments, a movement for the prevention of cruelty to animals is being taken up, an exchange bureau has been established, and the educational department is making efforts to establish a good reference library.

The Pedro Miguel club already has its library and has done much toward the development of social intercourse in the community. Paraiso is ahead in public effort; the organization of the church, the use of a small passenger coach to meet all trains at Pedro Miguel, the strengthening of a bridge which had been declared unsafe for the school children to cross and special work for the hospital in contributing some necessary linen has been among the work of the past few months.

Culebra shows that, although the club has suffered many changes since its organization, it is in a better condition to-day than it ever has been. The meetings on alternate Thursdays are well attended; Parliamentary law is being studied in order to place the work of the club on a better basis, the entertainments of the past few months have been notable, and the club spirit is manifested in the loyalty and good fellowship of the members.

The Empire club takes interest in educational matters, as shown in the report read by the president's representative, Mrs. H. C. Ball. The membership is constantly increasing. The programs presented at the social meetings are varied and interesting. The club has resources and a good organization.

Las Cascadas has been aiding in special philanthropic work, giving the proceeds of entertainments for that purpose. The club has taken up the question of the division of the commissary, and hopes that the action will result in having the division for gold and silver employes made.

Mrs. S. E. Calvit gave an interesting resumé of the work of the Gorgona club since its organization in June, 1907. This date shows the organization to be the oldest of the women's clubs in the Zone, and antedates the visit of Miss Helen Varick Boswell, in connection with the organizing of the clubs in the Canal Zone. Miss Boswell assisted in perfecting the organization of the Gorgona club, which was already working on its own constitution and was a firmly established feature of community life.

The Gatun club shows an increase of membership and the development of the children's library, which is now in circulation. Public and philanthropic work are also well represented in this club.

The Cristobal club, which closes its first year this month, looks back upon a profitable season of work and study covering a wide range of interest. The departments work independently and are well equipped and in good hands. Throughout the year the programs presented have been of value and interest. Distinguished visitors have enjoyed the club's hospitality, and loyalty and good comradeship are potent elements in the successful efforts of the club.

These reports demonstrated the steady growth of club life among women of the Zone. They showed that, while established primarily to promote social intercourse among the women, the clubs have long outgrown their first intention, and are earnestly working now to become representative organizations with a serious purpose.

A report presented by Mrs. Eppelsheimer of the Home Educational Department of the Cristobal Woman's Club, embodied the following subjects; that the same studies be taught and the same books be used in corresponding grades in all the Zone schools; that Spanish should be taught the children from the third grade up; a Board of school directors, on which club women shall be appointed, shall be in each place where there is a school; the abolishment of corporal punishment in the schools, and the request that provision shall be made for the teaching of music in the Zone schools. After some discussion, a committee with Mrs Eppelsheimer as chairman, was appointed to consider what action should be taken.

The following delegates were elected to attend the General Federation meeting in Boston in June: Mrs. George W. Goethals, Mrs. Sumner Coolidge, Mrs. Thomas E. Brown, and Mrs. E. F. Quimby; alternates were elected in order as follows: Miss J. Macklin Beattie, Mrs. F. W. Miracle, Mrs. Everest and Mrs. S. E. Calvit.

Rising votes of thanks were tendered to the officials of the Panama railroad for the courtesy extended to the club members, to the Commission band which gave its services, and to the entertaining club for its hospitality. The Gorgona Club invited the Federation through their president, Mrs. S. E. Calvit, to hold the October meeting with them.

The business meeting was adjourned with a five minute pause before the call for the annual meeting, when officers for the ensuing year were elected as follows:

Honorary president, Mrs. George W. Goethals; president, Mrs. Lorin C. Collins; first vice-president, Mrs. W. C. Gorgas; second vice-president, Mrs. Wm. L. Sibert; third vice-president, Mrs. Chester Harding; fourth vice-president, Mrs. Sumner Coolidge; recording secretary, Mrs. Frank W. Miracle; corresponding secretary, Mrs. E. Lewis Baker; Federation secretary, Mrs. Thos. E. Brown; treasurer, Mrs. E. J. Williams; auditor, Mrs. J. C. Barnett; chairman advisory board, Miss J. Macklin Beattie.

The revised by-laws as presented by the special committee were adopted. The special points of change are the raising of the yearly dues of each club to five dollars, and the amendment of the clause which provides for quarterly meeting of the Federation to read "three times yearly."

The annual meeting adjourned and the social session in the form of a reception tendered to the president of the Federation, Mrs. Geo. W. Goethals, began immediately.

Mrs. E. Lewis Baker, as chairman of the social committee presented the club members. In the receiving line were Mrs. Goethals, Mrs. Lorin C. Collins, as hostess, Mrs. D. D. Gaillard, Mrs. Wm. L. Sibert, Mrs. H. H. Rousseau, Mrs. Edgar Jadwin and Mrs. Chester Harding. The Commission band, under Director Jennings, furnished music during the afternoon and there were songs by Madame Faure and Mrs. E. Lewis Baker and a piano solo by Miss Blair.

An elaborate buffet lunch was served by a large committee of Empire club women, in the reading room on the second story, the table being decorated with ferns and flowers. During the afternoon the entire party was photographed on the steps of the club house.

The following is a list of the delegates present at the meeting:

Ancon—Mrs. J. M. McGuire, Mrs. R. E. Noble, Mrs. A. H. Bennett and Mrs. C. C. McCulloch.

Pedro Miguel—Mrs. P. R. Roberts, Mrs. W. J. Bonds, Mrs. H. W. Schick and Mrs. Harry Pease.

Paraiso—Mrs. Downs, Mrs. Kerslake, Mrs. J. C. Barnett and Mrs. Proud.

Culebra—Mrs. W. H. Butler, Mrs. Sumner Coolidge, Mrs. E. McCoy and Mrs. E. M. Pullen.

Empire—Mrs. F. W. Miracle, Mrs. A. S. Zinn, Mrs. E. A. Ash and Mrs. H. C. Ball.

Las Cascadas—Mrs. W. D. Stanton, Mrs. J. A. Van Hardevelt, Mrs. C. L. Thorn and Mrs. J. E. Albrecht.

Gorgona—Mrs. S. E. Calvit, Mrs. R. Varen Kamp, Mrs. B. F. Henkle and Mrs. Everest.

Gatun—Mrs. Chester Harding, Mrs. J. H. Stevenson, Mrs. E. C. McCulloch and Mrs. E. L. Bandy.

Cristobal—Mrs. J. J. Jackson, Mrs. John Burke, Mrs. J P Eppelsheimer, Mrs. Thos. E. Brown; alternates: Mrs. John Keife and Mrs. E. H. Colip.

CANAL WORK FOR MARCH.

Monthly Report of the Chairman to the Secretary of War.

April 18, 1908.

The Honorable,
The Secretary of War,
Washington, D. C.

Sir: I have the honor to submit the following report of operations on the Isthmus for the month of March, 1908:

Department of Construction and Engineering.

CULEBRA DIVISION.

The total amount of material excavated in this division during the month was 1,295,205 cubic yards, an increase of 46,940 cubic yards over the amount excavated in February. Of this amount, 1,216,264 cubic yards were removed from the Canal prism, and 74,621 cubic yards were taken from the Camacho and Obispo diversions.

For comparison with the work performed during the corresponding month of the previous year, the following table has been prepared:

Period.	Total amount of material excavated by steam shovels.	Classification of material		Av. No. of steam shovels working during month.	Wk'g days in m'th	Av. amount excavated per steam shovel per month	Av. amount excavated per steam shovel per day.
		Rock.	Earth.				
	cu. yds.	%	%			*cu. yds*	*cu. yds.*
1907 Mar.	813,098	47	53	43.88	25	18,530	741
1908 Mar.	1,289,057	59	41	42.19	26	30,554	1,175

Rainfall during month: 1907, 0.12 inches; 1908, 0.27 inches.

It will be noted that the total excavation by steam shovels in the Culebra Division during the month of March was about 50 per cent. greater than the amount for the corresponding month in 1907, and that the average output per shovel per day was 59 per cent. greater.

The rainfall was insignificant during both periods under comparison.

The drilling during the month amounted to 238,792 linear feet, and 249 tons of explosives were used.

The total amount of new track laid was 13.8 miles, and 11.4 miles of old track were removed.

There was a decrease of 326 in the laboring force over the month of February.

CHAGRES DIVISION.

The total amount of material excavated from this division during the month was 329,695 cubic yards, of which 324,233 cubic yards were taken from the Canal prism. The average output per shovel per day was 1,098 cubic yards.

The rainfall for the month at San Pablo was .49 inches.

COLON DIVISION.

Four dredges worked on this division during the month, three in the Canal prism in Limon bay and one in the old French canal above the dry dock. The total excavation of the dredges amounted to 546,886 cubic yards. Two steam shovels worked at the Mindi hills during the month, giving an output of 81,850 cubic yards.

GATUN LOCKS.

The seven steam shovels working at the lock site excavated 219,561 cubic yards. Of this amount 16,798 cubic yards were taken from the site for the cableways.

The work at Porto Bello included excavation from the site of the water works dam, the laying of concrete in the dam and the clearing of timber from the reservoir basin.

GATUN DAM AND SPILLWAY.

Three shovels worked throughout the month on the spillway, and three additional shovels were at work at this point a portion of the month. The total amount of material excavated was 155,037 cubic yards.

About eleven acres were cleared on Gatun island, and the material burned.

LA BOCA DIVISION.

Three dredges worked in this division during the month, all operating in the Canal prism. The total excavation was 783,281 cubic yards.

At Cardenas hill 12,360 cubic yards of material were excavated during the month.

LOCKS AND DAMS.

Borings were continued for the purpose of ascertaining the nature of the sub-strata on the Canal axis between Pedro Miguel and Panama.

Excavation was continued at the Miraflores lock site, the steam shovels giving an output of 67,963 cubic yards. At the spillway site 5,231 cubic yards were removed by means of wheeled scrapers.

During the month 5,997 feet of new track were laid.

RELOCATION OF PANAMA RAILROAD.

The spur track near Gorgona was continued for a distance of 379 feet. A spur 755 feet long was constructed from Gatun lock site to the relocated line to facilitate grading. No other temporary tracks were laid, and no tracks were removed.

During the month 37,837 cubic yards of material were excavated, and 226,461 cubic yards were placed in embankments.

In all 2,268 feet of temporary trestle were driven, 220 feet of which were destroyed by sliding of the fill.

Work was continued on the construction of Miraflores tunnel and various bridges and culverts.

During the month 2,480 feet of permanent track were laid, making a total of 28,052 feet to date. The permanent track was partially ballasted for a distance of 2,800 feet near Gatun.

The force of laborers engaged on the work of relocation averaged 1,150 men.

DIVISION OF MUNICIPAL ENGINEERING.

The usual maintenance work on this division in connection with water works, sewers and roads, was continued during the month Work was commenced on a number of small jobs of new construction, and estimates and drawings were made for proposed improvements at various points.

At the request and expense of the Panama Government, a tunnel was started under the incline on North avenue.

MECHANICAL DIVISION.

The usual work was performed by this division in connection with the installation of machinery in the shops, the erection and repair of equipment, and electric wiring and installations at various points. Miscellaneous new and repair work was done for other divisions and departments.

DIVISION OF BUILDING CONSTRUCTION.

During the month this division completed 52 items of construction, which included 1 corral, 6 hospital buildings, 1 commissary, 1 office building and a number of type houses. Repairs were made to 138 buildings, 11 buildings received alterations and 4 old houses were demolished.

DIVISION OF METEOROLOGY AND RIVER HYDRAULICS.

The usual observations and measurements were continued during the month.

The mean temperature for the month was 83 degrees at Ancon, 78 degrees at Bas Obispo and 80 degrees at Cristobal. At Ancon temperatures of 90 degrees and over were recorded on 30 days during the month. The total evaporation was 6.997 inches at Ancon, 6.290 inches at Bas Obispo and 7 555 inches at Cristobal.

The rainfall exceeded that for the month of March, 1907; at all stations with the exception of Gatun, Bohio and La Boca.

Department of Labor, Quarters and Subsistence.

There were received during the month 304 European and 164 West Indian laborers, making a total of 468. The excess of immigration over emigration was 1,651, of which number all but 61 were of the laboring class. There was a decrease in the silver force actually working on the last day of the month, as compared with the force at work on the last day of the previous month of 189 men. The necessity for the importation of additional men, in the face of a slight decrease in force, indicates that laborers are constantly dropping from the ranks on account of having saved a small competence, or from a desire to visit their homes, or other causes.

A total of 70 men were employed in the United States during the month. On the Isthmus, 341 gold men were employed or re-employed. There was a net decrease of 14 men in the gold force, however, as compared with the force at the end of February.

The situation as to quarters was about the same as during the preceding month. At some points there are large waiting lists for family quarters for gold employes, but at no point, except Porto Bello, is there lack of quarters for bachelor employes, or for laborers. The construction of five type houses was authorized during the month.

The subsistence department showed a decrease in operating expenses of $752.61, and an increase in total revenues of $925.84. as compared with the month of February. The increased cost of supplies, however, resulted in a loss of $22.05 in the subsistence operations, while the estimated profit for February was $5,896.65.

Department of Civil Administration.

COURTS.

The Supreme Court disposed of one civil case during the month of March. In the Circuit Courts, 7 civil and 28 criminal cases were heard and disposed of, and in the district courts 30 civil and 537 criminal cases were tried and settled.

The first trial by jury in the Canal Zone, under the President's order of February 16, was held at Cristobal on March 19, in the case of Julius Hart, charged with killing Joshua Thompson on February 24. The trial resulted in the acquittal of the defendant.

REVENUES DEPARTMENT.

The usual business of this department was transacted, embracing all matters in connection with the postal service, lands, collection of customs, internal revenues, miscellaneous collections and the administration of estates.

Forty-six vessels entered the ports of Ancon and Cristobal, and 45 vessels cleared.

POLICE DEPARTMENT.

Seventeen men were enlisted in the Canal Zone police force during the month of March, and 11 were discharged, making the total force at the end of the month 230 officers and men. The number of arrests was 586, as compared with 511 during February Seven convicts were committed to the penitentiary, and four convicts were discharged, 90 convicts remaining in confinement at the end of the month.

Three persons were deported from the Canal Zone during the month, of whom two were Americans.

The Coroner reported 14 deaths in the Canal Zone requiring his action.

DIVISION OF PUBLIC WORKS.

The average daily consumption of water in Panama and Colon during the month of March was 765 839 gallons and 430,869 gallons respectively, as compared with 770,793 gallons and 515,421 gallons respectively, in February. A number of new connections were made in both cities during the month.

In the public markets 134 stalls and 43 tables were occupied, and 34 stalls and 29 tables were vacant. The revenues from the markets aggregated $575.92 for the month.

FIRE DEPARTMENT.

Ten fires were reported in the Canal Zone during the month, none of which resulted in a loss of any consequence. The total strength of the Fire Department on on March 31 was 41 paid firemen and 300 volunteers.

DIVISION OF SCHOOLS.

The enrollment in the schools for white children was 532 in March, as compared with 517 in February. The enrollment in the colored schools was 1,364, an increase of 70 pupils over the enrollment for February.

On account of the re-alignment of the streets in Empire, the construction of a new schoolhouse for colored children at that point was authorized during the month.

Department of Sanitation.

[The full report of this department was published in THE CANAL RECORD last week.]

Respectfully,

(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Police Notes.

There has been found in the streets of Panama and forwarded to Police Headquarters, Ancon, for restoration to the rightful owner, a package of papers, apparently the property of Edith E. Atkinson, consisting of letters of recommendation, teachers's certificate, a diploma issued by Pitman's Phonetic Institute, etc., the majority of which papers are dated Kingston, Jamaica.

The number of arrests for drunkeness by the Zone police in January, 1908, was 77, in February, 87, and in March, 87. The comparatively small number of these arrests is thought to be due to the strict enforcement of the regulations governing the sale of liquor at retail.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Resolution of Sympathy.

THE CANAL RECORD:

I have the honor to enclose herewith a resolution of sympathy concerning the decease of Mr. Paul L. Riddle, the late Receiving Teller in the office of the Disbursing Officer, having died Thursday, the 16th inst. at 3 a. m. in the Ancon hospital, and will thank you to give place in the columns of THE CANAL RECORD, in order that his friends may be advised.

J C. FORMAN.

Empire, April 18.

WHEREAS, The Lord in his all-wise Providence, has called from among us our friend and comrade, Mr. Paul L. Riddle, and

WHEREAS, We have learned to love and esteem him most sincerely as a friend and office associate, and do mourn the loss, be it

Resolved, That we, his comrades and friends, extend to his relatives, especially to his beloved mother, of whom he often spoke most reverently, our sincerest sympathy in their bereavement, and

Further, That a copy of this resolution be sent to THE CANAL RECORD for publication.

Culebra Sojourners Club.

THE CANAL RECORD:

Notice to all members of the Culebra Sojourners Club: At the regular stated meeting of the club, held Friday, April 11, 1908, a resolution was passed creating monthly dues of 50 cents payable to the treasurer on the first Friday of each month. Members will please govern themselves accordingly.

The smoker was well attended and many were the matches burned, while much of interest to all Master Masons was discussed. The Paraiso delegation outlined a novel innovation in regard to Sojourners clubs, which, though still in embryo is to be nurtured into something tangible.

All members and Master Masons in good standing are earnestly requested to attend the regular stated meetings, held on the first and last Friday evenings of each month and by their presence assist in furthering the spirit of the club.

W. A. HEGNER,
Secretary.

Culebra, April 11.

Red Men Cross the Isthmus.

THE CANAL RECORD:

On the evening of April 10 the Improved Order of Red Men captured a group of pale-faces at La Boca, who were transported by special train to Empire and conducted to the wigwam of Cocle Tribe No. 3.

Deputy Great Incohonee B. B. Duncan cross examined the prisoners thoroughly and pronounced them worthy to become Red Men. With the assistance of Past Deputy Great Incohonee John E. Burns, he called in the sachems and chiefs with their warriors and braves, from the surrounding tribes, and instituted Panama Tribe No. 8, composed of the newly captured pale-faces and of Red Men whose hunting grounds are located in the La Boca district. Their chiefs were chosen and raised to their respective stumps for the current term. By the close of the "Raising" ceremonies, about one-hundred and fifty Red Men had gathered in the wigwam, all of whom joined in an enjoyable smoker until the wee small hours before dispersing. D. G. I. Duncan takes great pleasure in the fact that the chain of tribes extending the order from ocean to ocean is now complete. Appended is a list of the newly installed officers of Panama Tribe No. 8, Imp'd. O. R. M. La Boca, C. Z:

L. F. Lincoln, Prophet; Wm. H. Harrington, Sachem; C. C. Alexander, S. S.; E. Pederson, J. S.; C. Dean Eppley, C. of R.; Chas. P. Allen, K. of W.; L. D. Austin, C. of W.; Richard Dinger, 1st S; W. C. Shaw, 2d S; John S. Johnson, G. of W.; A R. Murphy, G. of F.; Herman Leibfritz, 1st, C. W. Parkinson, 2d, Walter Smith, 3d, Paul J. Bergen, 4th Warrior; Sydney W. Parkis, 1st, Chas. Allen, 2d, R. H. Hall, 3d, Louis Zelinsky, 4th Brave.

PAST SACHEM,

Ancon, April 17.

Social at Tabernilla.

THE CANAL RECORD:

Tabernilla Court No. 2, Independent Order Panamanian Kangaroos, on the evening of April 8 held their regular monthly social. The large dining hall of the I. C. C. was secured for the occasion and two special trains brought the visiting Kangaroos and their friends from Paraiso, Culebra, Empire, Las Cascadas, Bas Obispo, San Pablo and other points along the line. Ice cream, lemonade and cake were served during the evening. The whistle of the special trains blew promptly at midnight, which was the signal for Auld Lang Syne, and all departed loud in their praise of the entertainment committee, which consisted of Messrs. J. F. Quinn, E. P. Quinn and J. Kirby.

JAMES ADAMS,
Judge.

Tabernilla, April 13.

Ohio Club.

THE CANAL RECORD:

The Ohio Club of the Canal Zone will entertain the Ohio ladies on Monday evening, April 27, at the club room over the Gorgona hotel.

Music will be furnished by a colored quartette with guitar and mandolin. All Ohioans, whether members of the club or not, are invited to attend. They are also invited to attend the regular meetings of the club which are held every Monday evening at 7.30.

COMMITTEE,

Gorgona, April 20.

Memorial Day Athletic Contest.

The following standard track and field events will be contested in the athletic meet at Gorgona on May 30:

One-hundred-yard dash, 220-yard run, 440-yard run, 880-yard run, relay race, pole vault, running broad jump, running high jump, 12-pound shot-put.

The special exhibition events will be announced later. With a first-class track it is expected that several new Isthmian records will be established.. The I C. C. band will furnish music throughout the day.

The trial of Blas Martinez on the charge of murder and rape has been set for April 25, 1908. Summons have been issued for a number of witnesses. This will be the second jury trial in the Zone.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

REPORT FOR MARCH, 1908.

Total membership	1,445
Total number of bowling games	5,139
Average per day	197
Total number of pool and billiard games	12,914
Average per day	496
Total income from soda fountain	$1,432 69
Average per day	$46.10
Number of different men using gymnasium	190
Number of men enrolled in systematic gymnasium class work	62
Total attendance of men using gymnasium	850
Number enrolled in chess and checker clubs	74
Number enrolled in glee clubs	45
Number enrolled in dramatic and minstrel clubs	45
Number enrolled in camera clubs	10
Number enrolled in orchestras	14
Number enrolled in Bible clubs	57
Number enrolled in educational classes	88
Spanish	55
Mechanial drawing	6
Wireless telegraphy	6
First aid	21
Number of members of library	385
Total number of books withdrawn	1,040
Number of Sunday meetings	9
Average attendance	128
Number of imported entertainments	12
Average attendance	195
Number of local entertainments	8
Average attendance	224
Number of functions outside of Association management	9
Average attendance	112
Number of afternoons for women	28
Average attendance	15
Number of evening functions to which women were invited	34
Average attendance of women	45
Number of committees	34
Different men on committees	152
Number of men called on in hospitals	81
Number of letters written at public tables	5,590
Average per day	180
Total attendance at buildings	41,167
Average attendance per day	1,328

The Lyric Entertainment Company, consisting of two musical comedians and a soprano and reader, will arrive on the *Panama* April 24, and will appear at the various club houses as follows: Empire, Saturday, April 25; Cristobal, Monday, April 27; Culebra, Tuesday, April 28; Gorgona, Wednesday, April 29.

CRISTOBAL.

On Friday afternoon, April 17, the Cristobal Y. M. C. A. Athletic team had an athletic meet preliminary to the big meet at Gorgona on Decoration Day. Two teams were chosen as follows: Culbertson, captain; Luce, Mitchell, Stewart, E. Thomas, Whitley, Rish, Strong, N. Thomas; Fletcher, captain; Weller, Porter, Pring, Bartlett, McArthur, Drake, J. Thomas, Simka. The winners were: Seventy-five-yard dash, Culbertson, first; Luce, second; Weller, third. Shot-put, Weller, first; Culbertson, second; MacArthur, third. Fifty-yard dash, Culbertson, first; Luce, second; Weller, third. Pole vault, Fletcher, first; Stewart, second; Drake, third. High jump, Fletcher, first; Culbertson, second; Whitley, third. Broad jump, Weller, first; Culbertson, second; Fletcher, third. The four-man relay race was won by Fletcher's team, as was also the total score of the meet by the narrow margin of 30 to 29 points In the evening about thirty-five men participated in the regular gymnasium class work, after which three exciting games of basket-ball were played.

Fencing will be added to the regular gymnasium class work after the extra work for the exhibition is over Single sticks of the most approved Roosevelt type are being made for this work.

On Sunday afternoon, April 26, at 3.15 o'clock, Mr F. C. Freeman will deliver an address. There will be special music.

On Monday, April 27, the Lyric Entertainment Company from the States will present a program made up of musical comedies reading and other attractive features.

GORGONA.

The standing of the local bowling league is as follows:

Teams—	*Pinfall*
Machinists	6,355
Molders	6,123
Carpenters	6,001
L., Q. and S.	5,968
Miscellaneous	5,926
Boilermakers	5,902
Transportation	5,851
Plumbers	5,807
Jadwin's Office	5,759
Clerks	5,646

Individual averages are: MacCon'y, 163.4; Bullard, 154.2; La Rose, 153.9; Hayes, 153.2; Gamble, 153.

High bowling scores for the week are: MacCon'y, 232; Humphrey, 242; Collins, 209; Wilson, 206; Clause, 206; MacCormack, 205; Lasker, 204; Varen Kamp, 204; MacFarland, 201.

The Married Men defeated the Single Men in a warmly contested ball game on Friday morning at the Gorgona Baseball park by a score of 6 to 4. Batteries: Married Men, Morris, Wolf and Souder; Single Men, Drexel and Leveling.

To enable the Track Team men to get in some practice after dark, an arc light will be installed in the rear of the building early next week. About twenty men are practising in the gymnasium three nights a week.

EMPIRE.

The Empire Juniors defeated the Culebra Juniors at a duck-pin match on Saturday, April 18, by a score of 2 to 1. The pinfall per game was as follows: Empire, 231-236-275; Culebra, 256-231-268.

A one-man-team bowling tournament is being arranged. Entries will close Saturday night, April 25 The entry fee is 50 cents. All members wishing to enter the tournament are asked to register at once. Four appropriate prizes will be awarded.

Isthmian Baseball League.

Score, April 17, 1908:

At Empire Park: M. P. & M., 2; Empire, 1 (exhibition game).

Scores, April 19, 1908:

At Ancon Park: M. P. & M., 10; Kangaroos, 1.

At Empire Park: Ancon, 4; Marines, 0.

At Gorgona Park: Gorgona, 0, Empire, 9 (to Empire by forfeit, Gorgona team withdrawing from the field).

STANDING OF THE LEAGUE.

April, 20, 1908:

	Played.	*Won.*	*Lost.*	*Per cent.*
Ancon	16	14	2	875
Empire	16	13	3	813
M. P. & M	17	13	4	765
Culebra	16	8	8	500
Kangaroos	17	6	11	353
Gorgona	16	2	14	125
Marines	16	1	15	063

To be played April 26, 1908:

At Ancon Park: Ancon. vs. Empire.

At Empire Park: Kangaroos vs. Culebra.

At Gorgona Park: Marines vs. Gorgona.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, April 22, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Babcock, Harry
Ball, Wm. M.
Barrows, Miss M.
Bitz, Louis
Boothe, Samuel
Cooper, Mrs. C. W.
Chickering, Wm. H.
Douque, Miss Cordelia
Ewing, Miss Ada
Farre, John
Fenton, Horace
Gibson, Dr. W. C.
Hartel, John
Hamlin, H F.
Hyer, L. L.
Long, J. H.
McLean, John H. jr.
McArthur, David
Ferry, A. H.
Sproun, Miss F. S.
Shaw, B. C
Shay, Frank
Shutt, H R.
Swan, H H.
Thompson, Henry W.
Vanhardesveld, Mrs. Rose
Yagely, James

New galvanized iron roofs are being put on docks Nos. 1 and 2 of the Panama Railroad Company at Colon.

COMMISSARY DEPARTMENT.

NOTICE.

On and after Sunday, April 5, the Commissaries will not be open for business on Sundays or Legal Holidays. Purchases should be made on Saturday or the day preceding a holiday.

JOHN BURKE,
Manager

COMMISSARY PRICES

For week ending April 21

		Price. cts.
	FRESH MEATS.	
Beef—Sirloin roast	per lb	28
Rump roast	do	28
Porterhouse	do	28
Rib-roast, short-cut, (not under 3½ pounds	do	20
Rib-roast, second cut	do	17
Chuck-roast	do	13
Soup	do	7
Stew	do	12
Corned	do	10, 12 14
Suet	do	*4
Steaks—Sirloin	do	28
Porterhouse	do	28
Rump	do	28
Tenderloin	do	28
Round	do	18
Veal—Cutlets	do	24
Short-cut chops	do	24
Loin	do	23
Entire forequarters	do	11
For stewing	do	11
Mutton—Entire forequarters	do	9
Short-cut chops	do	20
Leg	do	†18
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	30
Legs	do	†28
Pork—Cuts	do	20
	MISCELLANEOUS	
Livers—Beef	per lb...	10½
Sausage—Pork	per lb...	16
Sweet bread—Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues	per lb...	24
Ox tongues	each...	90
	POULTRY AND GAME.	
Chickens, dressed (milk-fed),	each...	†1 50
Chickens, roast	do	1.15
Fowls	do	1.10
Ducks, fatted (fancy)	do	1.15
Suckling pigs	do	4.90
Turkeys	per lb...	26
Squabs	do	35
Eggs, fresh	per doz...	28
Geese (10 lbs.)	each...	2.00
	CURED MEATS AND LARD	
Bacon—Strips	per lb...	23
English breakfast, sliced	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45
Whole, Ferris	do	19
Tropical	do	18
	DAIRY PRODUCTS	
Butter—prints, prime quality	per lb..	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	33
Gouda	do	34
Edam	each...	1.05
Camembert	do	28
Pinxter's	tin...	22
Buttermilk	bot...	**15
	FRUITS AND VEGETABLES	
Pineapples	each..	16
Oranges	per doz...	12
Grape Fruit	each...	2½
Apples	per lb...	†7
Beets	per lb...	†6
Parsnips	per lb...	4
Limes	hun...	*80
Celery	bunch...	30
White potatoes	per lb...	3
Wax beans	per lb...	25
String beans	do	25
Onions	per lb...	3½
Cucumbers	per lb...	28
Sweet potatoes	do	2½
Carrots	per lb...	5½

** Indicates reductions from last list.*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	New Price. CTS.
Peas, 2s	tin	10	12
Shredded codfish, 1s	do	17	20

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra
Wm. Howard May, Secretary
M. B. DePutron, Assistant to the Chairman and Chief Engineer.
C. A. McIlvaine, Chief Clerk.
A. B. Nichols, Office Engineer

Department of Excavation and Dredging Maj. D. D. Gaillard, U. S. A., Culebra
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
Capt. George M. Hoffman, U. S. A., Assistant Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk
W. G. Comber, Division Engineer, La Boca
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun.
Sydney B. Williamson, Division Engineer, Corozal.
G. B. Strickler, Assistant Division Engineer, Corozal.
E. A. LeMay, Chief Clerk.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra,
Henry Goldmark, David Molitor, Designing Engineers, Structural Work Design.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics) Ancon.
D. W. MacCormack, Chief Clerk

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
A. M. Belding, Master Builder (Division of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.

Division of Material and Supplies: W. G Tubby, Chief, Cristobal.
M. A. Follman, Private Secretary.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
Herman A. Gudger, Deputy Collector, Ancon.
George R. Shanton, Chief of Police, Ancon
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
C. R. Sargent, Chief Clerk.
David C. O'Conner, Superintendent of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire
Lorin C. Collins, Associate Justice, Cristobal
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. Fleetwood Gruver, Quarantine Officer, Panama.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Sliter, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon

Commissary Department

John Burke, Manager, Cristobal.
P. T. Murphy, Asst. Manager, Cristobal.

Purchasing Department.

Headquarters, Washington, D. C., U. S. A.
Lieut.-Col. H. F. Hodges, U. S. A., General Purchasing Officer.
C. E. Dole, Chief-Clerk.

F. C. Nordsick, Asst. Purchasing Agent, 24 State Street, New York City.
S. E. Redfern, Asst. Purchasing Agent, Custom House, New Orleans, La.
W. G. Tubby, Purchasing Agent on the Isthmus, Cristobal, Canal Zone.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON

Panama	P. R. R.	Saturday	April	18
Sarnia	H.-A.	Saturday	April	18
Orinoco	R.-M.	Saturday	April	18
Allianca	P. R. R.	Thursday	April	23
Prinz Aug. Wilhelm	H.-A.	Saturday	April	25
Finance	P. R. R.	Tuesday	April	28
Prince Sigismund	H.-A.	Friday	May	1
Atrato	R.-M.	Saturday	May	2
Esperanza	P. R. R.	Monday	May	4
Advance	P. R. R.	Saturday	May	9
Prinz Joachim	H.-A.	Saturday	May	9
Panama	P. R. R.	Thursday	May	14
Pr. Eitel Friedrich	H.-A.	Friday	May	15
Trent	R.-M.	Saturday	May	16
Allianca	P. R. R.	Tuesday	May	19
Prinz Aug. Wilh'lm	H.-A.	Saturday	May	23
Finance	P. R. R.	Monday	May	25
Prinz Sigismund	H.-A.	Friday	May	29
Tagus	R.-M.	Saturday	May	30

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON TO NEW YORK

Advance	P. R. R.	Sunday	April	26
Prinz Joachim	H.-A.	Tuesday	April	28
Panama	P. R. R.	Friday	May	1
Pr. Eitel Friedrich	H.-A.	Tuesday	May	5
Trent	R.-M.	Tuesday	May	5
Allianca	P. R. R.	Wednesday	May	6
Finance	P. R. R.	Monday	May	11
Prinz Aug. Wilh'lm.	H.-A.	Tuesday	May	12
Esperanza	P. R. R.	Saturday	May	16
Tagus	R.-M.	Tuesday	May	19
Advance	P. R. R.	Friday	May	22
Prinz Joachim	H.-A.	Tuesday	May	26
Panama	P. R. R.	Wednesday	May	27
Allianca	P. R. R.	Monday	June	1
Magdalena	R.-M.	Tuesday	June	2
Finance	P. R. R.	Saturday	June	6

FROM NEW ORLEANS TO COLON

Preston	U. F. C.	Saturday	April	18
Harry T. Inge	U. F. C.	Saturday	April	25
Ellis	U. F. C.	Saturday	May	2
Preston	U. F. C.	Saturday	May	9
Harry T. Inge	U. F. C.	Saturday	May	16
Ellis	U. F. C.	Saturday	May	23

FROM COLON TO NEW ORLEANS

Preston	U. F. C.	Tuesday	April	28
Harry T. Inge	U. F. C.	Tuesday	May	5
Ellis	U. F. C.	Tuesday	May	12
Preston	U. F. C.	Tuesday	May	19
Harry T. Inge	U. F. C.	Tuesday	May	26

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Orinoco	R.-M.	Tuesday	April	28
Atrato	R.-M.	Tuesday	May	12
Trent	R.-M.	Tuesday	May	26
Tagus	R.-M.	Tuesday	June	9

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's Line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company despatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Floridian*, April 26.

The following steamers have recently arrived at La Boca: April 15, *Guatemala* from Valparaiso; April 17, *Quito* from Guayaquil. Departures were: April 12, *Aztec* for San Francisco and *Menes* for Southern ports; April 16, *Peru* for Valparaiso and *Newport* for San Francisco.

The Steamship *Manx Isles* sailed from Brunswick, Ga., on April 13, with a cargo consisting of 2,562 piles and 10,080 cross-ties for the Isthmian Canal Commission, and should arrive at Cristobal about April 22.

CANAL RECORD

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The Canal Record

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ISTHMIAN CANAL COMMISSION

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Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

New Zone Time.

The official circular, announcing the change in time made by the Panama Railroad Company on Monday last, and giving notice that it has been adopted by all Departments of the Isthmian Canal Commission, will be found on another page of this issue of THE CANAL RECORD.

The new time is the same as Eastern Standard (75th meridian) time in the States, is fifty-four minutes faster than the railroad time recently in use on the Isthmus, and is eighteen minutes faster than astronomical time at Panama.

The East La Boca Commissary.

The work of erecting the new commissary building at East La Boca has begun, and it is thought that the building will be ready for use about June 1. The Commissary Department authorizes the statement that it will be the largest and best equipped commissary on the line. The interior design, with a division for gold and silver employes, will be the same as in the commissary buildings at Culebra and Empire. The building will be twenty feet longer than those buildings, for the reason that it will be equipped with a much larger cold storage plant than they contain. The cold storage space will be, in fact, about twice the size of any other line commissary, and will be divided by an insulated partition into separate rooms for meats and vegetables.

There will be first-class meat cutters in attendance, and it will be possible for a housekeeper to give her order and have the cut of meat submitted to her before completing her purchase. It is expected that the cold storage box will be replenished daily, and everything will be carried in the commissary, both in the retail department and in the cold storage, that is carried at the main commissary at Cristobal.

The department has under consideration several plans in regard to the method of taking orders and the delivery of purchases. There is also under consideration a schedule of trains which will run between Panama and the commissary at frequent intervals during the day.

The Gamboa Bridge.

Work on the new bridge at Gamboa, on the new location of the Panama Railroad, is advancing steadily. All the concrete piers and abutments are completed and the channel span, a 200-foot, riveted, through lattice-girder, is in place, and the false work has been taken away. Two of the plate-girder spans, on the south end of the bridge, are also in place, and are being riveted, and the remaining plate-girder spans will be put in position as rapidly as they are delivered from the Gorgona shops, where they are being assembled.

Dentists for Canal Employes.

At a meeting of the Isthmian Canal Commission on April 27, the following was adopted:

The Sanitary Department is authorized to employ two competent dentists. These dentists shall be employes of the Commission, have all the privileges and allowances of an employe on the gold roll, drawing $1,800 a year, be furnished by the Commission with suitable instruments and office furniture, but shall receive no salary in money.

In return for these allowances, said dentists shall be subject to all the rules and regulations of the Commission, and shall do dental work for employes of the Commission and the Panama railroad and their families at a tariff to be fixed by the Chief Sanitary Officer. The dentists shall furnish all necessary material for doing dental work with the exceptions above mentioned.

Station A, Ancon Post-Office Abolished.

Station "A" of the Ancon post-office, located in the old Administration Building, Panama, will be abolished at the close of business on April 30. This will be done because most of the offices have moved to the new Administration Building at Ancon, and receive and send their mail through the Ancon post-office, and there is not a sufficient amount of business done in the old building to justify the retention of a separate post-office.

Work at Porto Bello.

The concrete dam, founded on rock, which is being built for the reservoir at Porto Bello, will be finished by the end of April, and it is expected that the gate-house will be finished by about May 10. After that date water will be supplied to all houses at Porto Bello, and the health conditions should materially improve. The Sanitary Department is making careful examination of the ground which will be covered by the reservoir so as to insure a supply of pure water.

The quarry is being opened, and foundations for the power house are being laid. The dock from which material will be loaded at Porto Bello, to be sent to Gatun, is nearing completion.

Commissary Improvements.

An extension of twenty-five feet is being made to the commissary at Las Cascadas, to allow for the separation of gold and silver employes, and there will be a re-arrangement of the interior space which will facilitate the transaction of business. The department is also preparing plans for the separation of gold and silver employes at the Pedro Miguel commissary.

New Spans in Barbacoas Bridge.

When the heavy locomotives and equipment were put into service by the Panama railroad and Isthmian Canal Commission, all the bridges on the Panama railroad had to be strengthened to carry the increased load. Most of the bridges were short spans of from eight to fifty feet—the shorter ones cast iron "T" beams and "I" beams, and the longer ones plate-girder spans. There was comparatively little work in strengthening these, but the bridge across the Chagres river near San Pablo, known as Barbacoas bridge, consisted of six wrought iron through plate-girder spans, ranging from 101 feet to 109 feet long, and the question of reinforcing it to handle the heavy traffic was more serious.

The weakest part of the old bridge was the floor system, and it was, therefore, the first to be renewed, the old floor beams being replaced with new ones in August, 1907. It was decided that the most economical and practicable way to handle the question of the girders themselves would be to strengthen them with pile supports driven at the centers of the spans during the dry season and to replace, with an entirely new bridge, the three north, or channel spans where the center supports could not be held during the rainy season, on account of drift in the river. This decision was reached in July, 1907, and the order for the three new spans left the Isthmus on August 29, 1907. On October 30, the United States Steel Products Export Company entered into a contract to furnish the bridge in New York by February 15, 1908. It reached Colon by the Panama railroad steamship *Colon* on March 18, and was shipped to Gorgona shops on March 20. The girders were shipped in three sections each, the largest being 40 feet long. They were riveted together at the Gorgona shops and taken to Barbacoas on March 24, where bridge erection gangs assembled the bridge and riveted the floor system. The first span was placed in position on Sunday, April 5, in seven hours; the second, on April 12 in four and a half hours, and the third on April 19, in four hours. The new spans are designed

NOTES OF PROGRESS.

(*Continued*)

to carry the heaviest traffic, and, with the three old spans supported in the middle and provided with a new floor system, the Barbacoas bridge will be able to handle the heaviest trains on the Isthmus safely.

On account of the lateness of the season, and consequent liability to flood, it was not thought advisable to place the new girders on false work alongside the old bridge, and then slide them into place, as is more commonly done. The old girders were therefore removed, and the new ones placed by the following method: The new spans, completely assembled, were loaded on flat cars and run on to the bridge directly over the place where they were to be landed. They were then blocked up on the old bridge, free of the cars, and the cars removed. A 75-ton locomotive crane was then placed at each end of the new bridge and the new span lifted and held suspended in the air while the old span was slid down stream on cribbing at the end of the stone piers. After the old span was removed the new bridge was lowered into place.

Gatun Steam Shovel Work.

For the week ending April 18, the seven steam shovels working at the Gatun lock site, excavated a total of 45,268 cubic yards, car measurement, an average of 6,467 cubic yards per shovel. The best record was made by shovel No. 104, with 7,488 cubic yards, an average of 1,498 cubic yards per day. The maximum daily output of the seven shovels for the week was made on Monday, April 13, when 9,904 cubic yards, car measurement, were excavated, an average of 1,415 cubic yards per shovel. The highest daily record for the week was made on Thursday, April 16, by shovel No. 107, when 1,808 cubic yards were removed.

During the same period the five shovels at the spillway excavated a total of 30,924 cubic yards, an average of 6,185 cubic yards per shovel. The maximum daily output for the five shovels was made on Monday, April 13, when 6,948 cubic yards were removed, an average of 1,390 cubic yards per shovel. The best record for the week was made by shovel No. 119, with a total of 8,304 cubic yards, an average of 1,661 cubic yards per day. The highest daily record for the week was made by shovel No. 119, on Saturday April 18, when 2,016 cubic yards were removed.

At Mindi, the two steam shovels at work excavated a total of 14,990 cubic yards for the week ending April 18, an average of 7,495 cubic yards per shovel. The maximum daily output by the two shovels for the week was on Thursday, April 16, when 3 314 cubic yards were removed, an average of 1,657 cubic yards per shovel. The best record for the week was made by shovel No. 133, with a total of 7,777 cubic yards, an average of 1,555 cubic yards per day. The highest daily record for the week by either of the two shovels was made by shovel No. 133 on Thursday, April 16, when 1,876 cubic yards were removed.

The steamship *Rygia* sailed from Holquiam, Wash., on April 17, with 2,973,500 feet of lumber for the Isthmian Canal Commission

Secretary Taft to Visit the Isthmus.

Secretary Taft will leave Washington for a brief visit to the Isthmus on April 30. He will sail on the cruiser *Prairie* from Charleston, S. C. The cruiser is to bring a detachment of 700 marines who will cross the Isthmus and sail from Panama on one of the ships of the naval fleet, for the Pacific coast to take the place of enlisted men of the fleet whose terms have expired. The object of the Secretary's visit is the consideration of various urgent matters, including treaty and boundary questions between Panama and the United States, and Panama and the Republic of Colombia. He will remain on the Isthmus about five days, reaching the United States on his return about May 20.

Rules for the Promotion of Certain Employes.

At a meeting of the Isthmian Canal Commission held on April 27, the following rules were adopted:

General Rules for the Promotion of Gold Employes Whose Rate of Pay Exceed $75 per Month, and Whose Duties are not Professional or Clerical.

1. In all departments and divisions in which work is in progress on a regular basis, the number of employes in each supervisory or directive grade and class, and the rate of pay for each grade and class, shall be fixed as on May 1, 1908, and this number shall not be exceeded in any grade or class without special approval by the Chairman and Chief Engineer. In case of a decrease of the working force, the number of employes in each supervisory or directive grade or class will be decreased correspondingly.

2 Vacancies occurring in any division or department will, whenever practicable, be filled in the following order of preference:

(*a*) By the promotion of deserving employes in that division or department.

(*b*) By the transfer of deserving employes from other branches of the work.

(*c*) By the employment of citizens of the United States, either on the Isthmus or in the United States.

(*d*) By the employment of foreigners.

3. In making recommendations for promotion, due consideration must be given to qualifications in the order named,—

(*a*) Efficiency
(*b*) Conduct
(*c*) Length of service
(*d*) American citizenship.

4 Except in cases of emergency, no employe will be eligible for promotion to a higher grade or class until he has served satisfactorily for not less than three months in the next lower grade or class.

5. Any employe who voluntarily leaves the service without giving at least five days notice in advance to his immediate superior, will be ineligible for employment for a period of 30 days thereafter, and upon re-employment shall not receive a rate of pay greater than that received at the time of leaving the service.

6 An employe whose service has been unsatisfactory shall, if re-employed, receive a rate of pay materially smaller than that received at the time of his discharge.

Care of Fowls.

At a meeting of the Isthmian Canal Commission, on April 27, the Chairman stated that his attention had been called to the growing practice of keeping chickens and other fowls around Commission quarters. In several instances a nuisance has been created by the uncleanly state of buildings and coops, and complaints had been made on account of the condition of sidewalks caused by chickens running at large. It being considered desirable that some regulation be adopted respecting the keeping of poultry, upon motion, it was

Resolved, That when fowls of any kind are kept by employes living in Commission quarters, they shall be confined in buildings or coops located in a yard or enclosure of wire, the same to be approved by the Chief Sanitary Officer. Such buildings, or coops, must at all times be maintained in a condition satisfactory to the Inspectors of the Sanitary Department. This resolution shall be effective, May 15, 1908, and any violation of its provisions upon the part of any employe may be considered a sufficient cause for forfeiture of quarters.

Medals for Canal Employes.

The special committee appointed by the Chairman of the Isthmian Canal Commission to consider the question of medals for Canal employes who have been in the service for two years or more, submitted a report to the Commission at a meeting on April 27 which was unanimously adopted. Appended is the full text of the report:

Lieut.-Col. Geo. W. Goethals,
Chairman and Chief Engineer,
I. C. C., Culebra, C. Z.

Sir: In accordance with your instructions, at the 142nd meeting of the Commission, appointing the undersigned a committee to consider the matter of medals to be given to all citizens of the United States who have rendered two years' satisfactory service on the Isthmus, we have the honor to submit the following recommendations:

1. American citizens, alone, shall be eligible for medals and for naturalized aliens, medal service shall count only after acquiring citizenship.

2. Medal service shall begin with American occupation, employes of the Isthmian Canal Commission and Panama Railroad to be equally eligible after that date.

3. Medals shall be numbered consecutively in the order in which they have been earned.

4. Continuous service on the Isthmus, alone, shall count for medal longevity.

5 Service shall have been satisfactory.

While not exactly covered by your instructions, we should like to submit our views in regards to the medal itself, as follows:

(*a*) It shall be approximately the size of the American silver dollar and shall be of composition or bronze from old French canal scrap.

(*b*) On one side shall be a medallion head of President Roosevelt, and on the other side the seal of the Canal Zone.

(*c*) The medal shall be inscribed "For Two Years' Continuous Service on the Panama Canal" and "Presented by the President of the United States."

(*d*) Each medal shall be engraved with the name of the employe, the number of the medal and the years included by his two years' service.

Among the ideas which have been considered, is whether provision shall be made for additional service bars for each two years' continuous service. While this idea has some attractive features, we believe that it will be better to defer action on same for the present.

Very respectfully,
H. H. ROUSSEAU,
Commissioner
JACKSON SMITH,
Commissioner

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

First Baptist Church of Empire.

THE CANAL RECORD:

The members of the various Baptist churches, upon invitation, met the Rev. J. L. Wise, official representative of the Southern Baptist Mission Board at the home of Mr. J. C. Forman at Empire, to discuss the outlook for the denomination. It was decided to organize a church to be known as the First Baptist Church of Empire, Canal Zone, and the following persons subscribed their names as charter members: Rev. J. L. Wise and Mrs. Wise, Rev. J. H. Sobey and Mrs. Sobey, Mr. and Mrs J. C. Forman, Mr. and Mrs. S. H. Harrison, Miss Cicely K. Fray, Mr. J. W. Palmer and Mr. C. W. Bache.

The opportunity to become charter members was extended to the second Sunday in May (the 10th) when we expect to meet in the court house at Empire to perfect the organization. All regular Baptists are invited to be present.

REV. J. L. WISE,
Moderator pro. tem.
J. C. FORMAN,
Church Clerk pro. tem.

Goethals Garrison No. 106, Army and and Navy Union.

THE CANAL RECORD:

At the regular muster of the Goethals Garrison No. 106, on last Tuesday evening the 21st inst., Comrade Chas. Homer Mead, Master Car Builder for the I. C. C. was elected to fill the "post" of Commander, of the Garrison, which was recently declared vacant.

Comrade Chas. O. Dickerson was elected to fill the "post" of Sr. Vice-Com., which was also recently declared vacant. The elected officers were installed in their respective "posts" on Tuesday evening, April 28. All members were requested to be present.

All ex-members of the U. S. Naval and Military forces are invited to join the organization.

JOHN H. CASH.
Adjt. and Q. M.

Empire, April 23.

Fraternal Order of Eagles.

THE CANAL RECORD:

All members will be in attendance at a grand rally to be convened in Panama on Sunday, May 3, 1908. Brother C. A. Merritt (Jacksonville Aerie) has granted use of the Hotel Central parlors. Business of importance. James M. O'Brien (Omaha 38), La Boca; J. W. Johnston (St. Louis 41), Paraiso; H. J. Gallagher (Boston 45), Empire; Wm M. G Cord (Wallace 54), Bas Obispo; Frank Lasper (New Orleans 78), Gorgona; John E Burns (Cincinnati 142), Culebra; E. T. Sprague (Ensley 1,150), Cristobal.

COMMITTEE.

April 20.

Independent Order of Panamanian Kangaroos.

THE CANAL RECORD:

The regular monthly dance of Empire Court No. 1, I. O. P. K., will be held at Kangaroo Hall, Empire, May 2, 1908. Dancing at 8 p. m., sharp; Home Sweet Home at midnight. Music by the Gorgona Orchestra.

Kangaroos, their families and lady friends only, will be permitted entrance. The fact of membership to be proven by presenting visiting cards, or by other satisfactory evidence given to the door keepers, prior to admittance. This will be strictly a Kangaroo dance and others are requested not to present themselves. By order of the court.

H. C. WERTZ,
Judge.

Empire, April 27.

Red Men's Banquet at Paraiso.

THE CANAL RECORD:

The Improved Order of Red Men of Aztec Tribe No. 8, Pedro Miguel, will give a May Banquet at their hall in Paraiso, on Saturday evening, May 2, 1908. All friends and brothers are invited to attend. Arrangements will be made to accommodate those who desire to remain over night.

C. E. BRADLEY, JR.,
Committee.

Paraiso, April 27.

Empire Masonic Club.

THE CANAL RECORD:

The Empire Masonic Club will hold a reception and dance on Friday evening, May 22. All members are requested to meet at the Empire club house on Wednesday, April 29, when the committee on entertainment will be ready to submit final plans.

A. L. HAINES,
President.

Empire, C. Z., April 27.

Unclaimed Packages.

The following is a list of packages that have been forwarded from New York to Isthmian Canal Commission and Panama railroad employes, and that are waiting to be claimed at the freight house at Colon. Applications of claimants should be made through the freight agent, P. E. Cruchley. The owners of these packages will have to make application for free customs entry in connection with Circular No. 85, or in the alternative, pay duty to the Panama Government customs on the value of the contents of the packages, before delivery can be effected.

	Charges to collect
Way-bill No. 201—W. J. Rodman, Colon, 1 box china, *ex Finance;* April 9, 1908	$ 3 00
Way-bill No. 193—N. Weeks, Gorgona, 1 box, *ex Colon*; March 18, 1908	1 00
Way-bill No. 203—G. Swelton (or Sweton), Ancon, 1 box notions, *ex Esperanza:* April 13, 1908.	1.00
Way-bill No. 146—M. C. Benson, Bas Obispo 1 crate machine, *ex Advance;* December 9, 1907	3.00
Way-bill No. 111—S. G M., Cristobal, 1 box hardware, *ex Advance;* August 25, 1907	1.00
Way-bill No. 89—J. H. Higgins, Cristobal, 2 cases picture machinery, *ex Colon;* June 29, 1907	3.00
Way-bill No. 197—J. S. Marsh, University Club, Panama, 1 box stationery, *ex Panama*; March 30, 1908	1.00
Way-bill No. 199—D. S. Fuller, Cristobal, 1 box sewing machines, *ex Alianca;* April 3, 1908	4.25
Way-bill No 191—W. A. Fishbaugh, Panama, 1 case photo paper, *ex Finance*; March 14, 1908	1.00
Way-bill No. 197—A. F. Weston, La Boca, 1 crate trunks, *ex Panama;* March 30, 1908	4.25
Way-bill No. 195—Emanuel Wright, Cristobal, 1 box books, *ex Advance;* March 25, 1908	1.25
Way-bill No 177—Edwin A. Edwards, Cristobal, 1 case books, *ex Panama;* February 5, 1908	free
Way-bill No 197—Ed P. Matters, Empire, 2 packages household goods, *ex Panama*; March 30, 1908	7.38
Way-bill No. 201—Archie J. McDaniel (or McDermid), Las Cascadas, 1 box, *ex Finance;* April 9, 1908	1.00
Way-bill No. 203—Fred S. Beard, La Boca, 1 case go-cart, *ex Esperanza;* April 13, 1908	3.00
Way-bill No. 203—Aug. Pfisterer, Cristobal, 1 box L. Oxylithe, *ex Esperanza;* April 13, 1908	1.00
Way-bill No. 203—Jos. J. Smith, Paraiso, 1 box personal effects, *ex Esperanza;* April 13, 1908	3.00
Way-bill No. 201—Ralph A. Schofield, Gorgona, 1 package, *ex Finance;* April 9, 1908	1.00
Way-bill No. 203—J. E. Johnson, Culebra, 1 box tobacco, *ex Esperanza;* April 13, 1908	1.00
Way-bill No. 199—John Burke, Colon, 1 package samples, *ex Allianca;* April 3, 1908	1.00
Way-bill No. 153—H. A. Yiernan, Gorgona, 1 package, *ex Finance;* December 26, 1907	1.00
Way-bill No. 199—A. E. Broadhurst, Ancon, 1 package, *ex Allianca;* April 3, 1908	1.00
Way-bill No. 159—John H. Guinther, Cristobal, 1 piece canvas, *ex Advance;* January 6, 1908	1.00
Way-bill No. 187 C. G. Letts, Colon, 1 package, *ex Panama*; March 2, 1908	1.00
Way-bill No. 153—G. H. Beldon, Cristobal, 1 parcel books, *ex Finance;* December 26, 1907	3.25
Way-bill No 203—Miss Bessie Blair, Culebra, 1 package, *ex Esperanza;* April 13, 1908	1.30
Way-bill No. 203—Dr. J. C. Perry, Ancon, 1 parcel clothing, *ex Esperanza;* April 13, 1908	1.00
Way-bill No. 195—Mr. W. R. McCann, Culebra, 1 parcel cement, *ex Advance;* March 25, 1908	1.00
Way-bill No. 191—Wm. H. Boxby, Y. M. C. A., Culebra, 1 parcel timing clock, *ex Finance;* March 14, 1908	1.00
Way-bill No. 153—Manuel Diez, Panama, 1 package, *ex Finance;* December 26, 1907	1.00
Way-bill No. 165—Jas. Vaugher (or Vaughn), Culebra, 1 box, *ex Dunottar Castle;* January 15, 1908	1.00
Way-bill No. 201—C. E. Weidman, Cristobal, 1 case hats, *ex Finance;* April 9, 1908	1.00
Way-bill No. 189—Isaiah Shirley, Ancon, 1 box drugs, *ex Allianca;* March 9, 1908	1.00
Way-bill No. 203—E C. Thomson, Cristobal, one parcel umbrellas, *ex Esperanza;* April 13, 1908	1,00
Way-bill No. 203—S. J. Charles, Empire, 1 case perfume, *ex Esperanza;* April 13, 1908	1.00
No. 7,232—J. W. Foulks, Colon. 1 parcel, *ex Dunottar Castle;* September 30, 1907	prepaid
No. 7,321—J. M. Chumacero (or Chumacrro), Colon, 1 parcel, *ex Dunottar Castle;* November 24, 1907	prepaid
No. 7,503—Jos. V. Sadler, Pedro Miguel, 1 parcel, *ex Finance;* March 14, 1908	prepaid
No. 7,517—E. T. Lefevre, Colon, 1 parcel, *ex Colon;* March 18, 1908	prepaid
No. 7,518—Dr. F. M. Shook, Cristobal, 1 parcel, *ex Colon;* March 18, 1908	prepaid
No. 7,564—Mayer Unterberg, Panama, 1 parcel, *ex Esperanza;* April 13, 1908	prepaid

E. Fletcher Dominick, an American, who was sentenced to the penitentiary for larceny on October 26, 1907, for a term of two years, and who was pardoned by the Head of Department of Civil Administration on April 3, 1908, was, by order of the Chairman of the Commission, deported from the Canal Zone to the United States on April 5, 1908.

SOCIAL LIFE OF THE ZONE.

Zone Organizations Will Continue Activities During the Summer.

Nearly all the zone clubs will remain active during the entire year. The proposal to have a recess during the summer has not been received with favor, for the reason that few of the club organizations are so perfected that departmental work can continue, and it is feared that the ground upon which the clubs were organized, *i. e.* the unification of social interest, will be lost, and the work of arousing interest will have to be done all over again.

The meeting of the Ancon club, April 15, was in charge of the philanthropy department, Mrs. H. D. Reed, chairman. Mrs. Reed gave a short talk on the necessity for taking up the prevention of cruelty to animals and stated that the department will enter at once into this special branch of philanthropic effort and begged the cooperation of all the club members. She then read an interesting paper illustrative of several points which she wished to emphasize. The educational department of the club met at the residence of the chairman, Mrs. William Ruggles, on April 22. for the discussion of plans. A feature of the meeting was the reading of Van Dyke's "Blue Flower." Tea was served. The regular meeting, May 6, is in charge of the home department. A suitable program will be given. The Ancon Art Society has suspended the April meeting, owing to the absence of the chairman, but it is expected that the May meeting will take place as usual. The sketching class meets regularly and the work and interest are keeping up well.

The colonial tea given by the Culebra club, April 16, to celebrate the Battle of Lexington was very successful. One of the features of the program was the recitation "Paul Revere's Ride," given by Miss Eleanor Coolidge. The 29th of May will be horticultural day at the club.

The Empire club is planning several interesting programs for the coming month. The club will probably suspend activities during the absence of the president, Mrs. F. W. Miracle, in the States.

The Las Cascadas club continues its weekly meetings with unabated interest. The meetings, April 16 and 23, were well attended; social features in the way of cards, recitations and informal music being enjoyed. The reports of the delegates from the Federation meeting were read and adopted at the meeting, April 23. The club gave a dance in the club rooms, April 25.

The Cristobal Woman's Club announces a charity ball, in costume, in aid of the philanthropy department, to be given on May 9, in the Commission club house. The price of tickets is one dollar and may be had upon application to members of the club. The club has also arranged for private card parties at a nominal entrance fee, the proceeds to be devoted to the same department. The work which the philanthropy department wishes to take up requires funds and the club hopes to meet the necessity by these means.

The costume ball given by Mrs. W. C. Gorgas at her residence at Ancon, in honor of her daughter and her guest, Miss Elise Walker, on Thursday evening, April 23, was attended by nearly two hundred guests.

The Easter services at the Ancon Protestant chapel were well attended by a large number of representative people from the line as well as the regular congregation. The Ven. Archdeacon Bryan officiated. The flowers from the chapel were used later for decorating the graves of two Englishmen who had died during the year. The offering, which will be devoted to the purchase of articles for the church, amounted to nearly seventy dollars.

The Sunday School Easter service took place at the regular time. Eleven pupils of the Sunday school have won prizes by regular attendance since Christmas. There is an effort being made to establish a Sunday school library, and donations of books, suitable for the purpose, are earnestly requested. The few books already owned are in circulation and are much enjoyed by the children.

The Altar Guild, of St. Luke's church, held its meeting at the residence of Mrs. H. R. Carter, Monday, April 20, the meeting being in the form of a welcome to Archdeacon Bryan, chaplain and honorary president of the Guild. The meetings are well attended and the work undertaken by the women progresses with enthusiasm and interest.

The Rt. Rev. A. W. Knight, D. D., Bishop of Cuba, will visit the Isthmus from May 7 to May 12 He comes as the representative of the presiding Bishop of the American Protestant Episcopal Church. He will make the following visits and administer the rite of confirmation: Saturday, May 9. at 3 p. m , St. Andrew's church, Gorgona; Sunday, May 10, at 10 a. m., St. Luke's church, Ancon hospital; at 3 p. m , St. Mark's (West Indian); at 7.30 p.m., St. Paul's church, Central avenue, Panama; Monday, May 11, at 11 a. m. Las Cascadas; at 8 p. m., Christ Church, Colon.

The Paraiso social club-gave a smoker to its members and friends, Saturday evening, April 25. The program consisted of music led by the Paraiso Orchestra, vocal solos, clog dancing, flute solos, mandolin and guitar trios, and a series of moving pictures. Mr. Segall gave several impersonations. Refreshments were served during the evening, and the affair closed with impromptu singing by all present.

The Ancon Amusemement Association has arranged with the Lyric Entertainers, consisting of Mr. Joseph Stewart Walker, Musical Specialist; Mr. J. Woodman Babbitt, Reader; Mrs. Meta Stanley Hughes, Dramatic Soprano; Mrs. T. A. Whitworth, Pianist, for an entertainment, to be given at the Metropole Theatre, Friday evening, May 1, at 8.30 p m., railroad time.

Concert.

By the I. C. C. Band at the Hotel Tivoli, Sunday, May 3, at 3 p. m.

PROGRAM.

1	March	*Waldmere.*	Losey
2	Selection	*Merry Widow*	Lehar
3	Waltz	*Amoreuse*	Berger
4	Concert mazurka	*Heather Bells*	Losey
5	Fantasia	*Gems of Stephen Foster*	Tobani
6	Baritone solo	*Beyond the Gates of Paradise* D. E. NORCROSS.	King
7	*a* Waltz	*Will You Be Out To-Night*	Allen
	b Schottische	*On Yo' Way*	Allen
8	Sextette	from *Lucia*	Donizetti
9	Overture	*Lustspiel*	Keler Bela
10	March	*Col. Goddard's*	Reeves

OLIVER KIMBALL,
Assistant Director.

The next concert will be given at Paraiso May 17.

PERSONAL.

Mr. Tom M. Cooke, Collector of Revenues, accompanied by his mother and sister, sailed on the *Advance*, on April 26, for a three months' vacation in the States. During his absence, Mr. Herman A. Gudger has been designated as Acting Collector of Revenues by the Head of the Department of Civil Administration.

Among the passengers on the *Esperanza* which sailed from Cristobal on April 20, were Dr. I. J. Rausbottom and family of Bas Obispo; Dr. L. A. Spaeth of Culebra; Dr. A. G. Farmer of Colon Hospital, and Mrs. S. T. Darling and daughter of Ancon.

Among the passengers returning to the Isthmus on the *Panama*, which arrived at Cristobal on April 24, were Sledge Tatum, Resident Engineer at Gatun, and Dr. N. D. Brayton of Ancon.

The Hon. H. Percival Dodge, United States Minister to Salvador and Honduras, accompanied by Mrs. Dodge arrived on the Isthmus on the *Panama*, April 24, on his return to his post from a visit to his father in Nice, France, and sailed for San Salvador on April 27.

Mrs. E. F. Quimby, secretary of the Ancon Woman's Club, will sail for the States on the *Panama*, May 1, for an indefinite stay at her home in Boston.

Mr. Wm. M. Acheson, Acting Resident Engineer in the Division of Municipal Engineering, and Miss Inger Miller, were married at Ancon on Saturday afternoon, April 25. Archdeacon Bryan performed the ceremony.

Mr. J. B. Jeffries, Supervisor, Department of Labor, Quarters and Subsistence, Ancon, and Miss Lillian Scullen, were married on Saturday morning, April 25, at the residence of Mr. J M. Maguire; the ceremony being performed by Archdeacon Bryan. Mr. and Mrs. Jeffries will be at home at house No. 121, Ancon, after May 10.

Mr. Malcolm Elliott, Principal Hydrographer in the Division of Meteorology and River Hydraulics, will sail for the States on the *Allianca*, May 6. Mr. Elliott has three months' leave and during his absence he will be married to Miss Elsie Hyder Albaugh of Ancon Hospital. The wedding will take place on May 16, in Washington, D. C.

Tomato Plants for Distribution.

The Ancon gardens of the Commission have about 1,500 tomato plants above their requirements, which will be distributed among employes of the Commission and the Panama railroad who may care for them.

These plants are Clark's "Early Jewel," a superior variety. They will be distributed in lots of 25, and arrangements for delivering the plants must be made by the persons receiving them. Applications should be made to J. M. Maguire, Ancon.

LEGAL NOTICE.

Circuit Court, First Judicial Circuit.

The last will and testament of M. J. Gerdes having been presented to this court, notice is hereby given that, on the 2d day of May, 1908, at 8 o'clock a. m. in the court house at Ancon, there will be a hearing when all concerned shall appear to contest the allowance of the will.

WALTER EMERY,
Circuit Court Clerk.

A STUDY OF THE RED BUG.

Samuel G Blythe in "The Saturday Evening Post," April 23.

Oh, the chigoe is a chigger,
The jhiggre is a jigger,
And both are very handy birds of prey:
But if you want to figger
On the real thing in a digger
Just let the genial Red Bug come your way.
—*Songs of the Savannas*

And that is no Nature-faking yarn, either, as many a person who has gone picnicking on the Isthmus of Panama can testify. Lest the impression may be gained that the Red Bug is a gay and pleasure-loving beast that frequents picnics only, I hasten to say that many a person on the Isthmus who hasn't been picnicking can give expert evidence on the same point.

The Red Bug is a versatile and industrious inhabitant of the Canal Zone to the number of a few billions or trillions, be the same more or less. To be sure, he inhabits all the rest of the Isthmus outside of the Canal Zone, but since the Americans began digging the Canal his sphere of activity has been so enlarged the Zone may be said to be his principal place of residence—that is, strictly speaking, not the Zone but the people who live in the Zone. Before the American occupation things were dull and stupid for the Red Bug. The only persons with whom he could get on terms of real intimacy were the natives, and constant association with one class of people for some hundreds of years must have bored the Red Bug, even as the Red Bug bored the natives. Suddenly, there appeared thousands of white feet and legs on the Isthmus and the Red Bug took heart. The course of his life was changed. Instead of drilling into the feet of the natives perfunctorily and merely because there had to be some place for each Mrs. Red Bug to lay her eggs, the Red Bug population became imbued with the joy of living. Here was something worth while: thousands of feet that had never been jiggered or chiggered or red-bugged before.

Not many of the Americans who went to dig the Canal had been in the West Indies. They knew little of the machinations of the chigoe. A few remembered the jiggers of the wheat-fields. So, when they walked through the savannas and stood around in the grass and returned at night to find various red spots on their feet and legs that soon developed into sores, they examined into the cause and named the offender the Red Bug, with that facility Americans have for naming new things. The entomologists of the expedition said, with a great show of learning, that the insects undoubtedly were the chigoe, or *Sarcopsyllà penetrans*. The Americans replied they didn't know about the *Sarcopsylla* part, but the *penetrans* was all right, and they guessed they would call them Red Bugs, which they did, and which they are.

The Red Bug lives in the grass at all times, but lives there more numerously in the wet season than in dry. Mr. Red Bug stands watch, and when a pair of feet come along Mrs. Red Bug moves right in, under the skin, makes a comfortable home and proceeds to devote herself to the laying of eggs When she goes in she is smaller than the head of a pin, but when she is settled, with her curtains up, her rugs down, the furniture in position and the pictures hung, she is about the size of a small pea, being an ardent imperialist and devoted to the theory of expansion. People who do not know about Red Bugs do not notice the moving-in process. Mrs. Red Bug is quiet and unobtrusive about it Soon, however, the pride of possession of a neat and commodious domicile underneath the skin of the foot or leg causes her to grow, and then instant, active and diligent notice is taken.

The Red Bug is most companionable. Human company is preferred above all things. If you go where the Red Bug is, the Red Bug will go home with you. He insists. There is nothing to be done about it, except to dispossess the little friend as soon as possible. Otherwise, there will be several days of pain and trouble. Many a sighing swain, after a stroll with his sweetheart, has awakened in the morning to find himself spotted like a coach-dog, only the spots were red. Many merry picnickers, after happy hours beneath the palms, have reported "sick" next morning, and have spent tedious hours serving eviction papers on their tenants with needle-points. The tropical moonlight is glorious. It is the spooniest moonshine in the world, but when you are out spooning in it, watching the silver beams filter through the waving palms, the Red Bug is unostentatiously taking apartments in your feet. There is no spoony moonshine nonsense about the Red Bug. He is always at work.

There is one elevation along the Canal the men call Red-Bug Hill. They say this is the original home of the pest, and that he thrives there in greatest numbers. And, as we are not too-serious-minded a people, the Red Bug, although a most irritating feature of life in Spigotty Land, has come to be a joke—that is, it is a joke when the other fellow gets a visitation. If you walk around in the grass you are bound to get on terms with them. One young doctor at the Cristobal Hospital brought in sixty-two on his feet and legs on a historic occasion. So far as known, that is the record.

They are more careful now, but in the early days what the Red Bugs did to the picnickers is too sad to relate. So, too, are the stories of the expeditions when the ladies forgot about the intensity of the tropical sun and came back so sunburned they were about half done, and the other tales of experiences due to new conditions and a new climate and a new *insecta*. Still, they came as part of the game, and complaints are fewer than the laughs.

Gugu Bahay.

THE CANAL RECORD:

Filipinos attention—The second meeting of the "Gugu Bahay" will be held at the Metropole Hotel, Sunday, May 3 at 2 p. m. All ex-residents of the Philippine Islands are requested to be present. The charter will be closed and permanent officers will be elected.

W. E. BRANDON,
Sec'y, pro tem

Culebra, April 21.

Blas Martinez, Colombian, was tried on a charge of murder and rape, on April 25, at Ancon in the Circuit Court of the First Judicial Circuit, Chief Justice F. Mutis Duran presiding. He was found guilty and will be sentenced on May 4.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

The Lyric Entertainers have concluded a series of popular performances, and have been engaged to appear before the Ancon Amusement Association on Friday evening, May 1. On Sunday evening, May 3, they will give a sacred entertainment at Empire, and the following regular return engagements have been booked: Saturday, May 2, at Gorgona; Monday, May 4, at Cristobal; and Tuesday, May 5 at Culebra.

CRISTOBAL.

The second term of our educational work closed this week. A vacation will be taken until the first week in June, when new classes will be organized The class in advanced Spanish will continue, owing to a considerable demand on the part of the men who are ready to study the Spanish grammar. The class for the study of shorthand will also be continued, and additional enrollments are being received.

The billiard tournament is in progress this week. C. R. Bryon is high man, with a score of six games won and none lost; J. A. White is second, with six won and one lost; E. K. Turner is third, with six games won and two lost.

The Sunday Club presents the following program: May 3, address, "The Philosophy of Friendship," by Mr. F. C. Freeman; tenor solos by Mr. Pierce T. Murphy, accompanied on the violin by Miss Johnson of Empire; May 10, address by Col. Maidment, commander-in-chief of the Salvation Army of the West Indies. Special music by the staff.

The gymnastic contest and exhibition given by the gymnasium class on Friday was the first of its kind on the Isthmus. The following program was given: Close order drill, led by Mr. Chisholm; terpsichorean drill, led by Mr. Gourlie; contest on the horse; pyramid building a la Monte Cabello; club swinging drill; contest on parallel bars; fancy club swinging, Robert E. Gourlie; stunts on parallel bars, C. R. Chisholm and C. E. Gifford; frolic of the frogs; recreative games. Gold, silver and bronze medals were awarded for excellence on the bars and horse to Messrs. Bartlet, Chisholm and Dillon.

GORGONA.

The volley ball game on Saturday evening, April 25, was won by the single men by a score of 21-19. The basket ball game was won by the married men by a score of 23-17.

The standing of the local bowling league is as follows:

Teams—	*Games—*	*Pinfall*
Plumbers	18	7,403
Machinists	16	7,209
Molders	16	6,996
L., Q. and S.	16	6,850
Carpenters	16	6,836
Jadwin's Office	16	6,710
Boilermakers	16	6 694
Transportation	16	6,657
Clerks	16	6 384
Miscellaneous	14	5,926

High bowling scores for the past week are: Sexton, 226; MacCon'y, 221; Clause, 200; Wright, 199; Kenney, 193; Potts, 192.

EMPIRE.

For the one-man-team bowling tournament, that began on Monday, April 27, the following men have entered: Coonley, Gustavson, Edwards, Potter, Townsend, Mead, Rabbitt, McAdam, Brown, Whaler, Jerry, Goolsby, Pickett, Rainwater, Shaughnessy, Spinks, Ruckert, McGimsey, Nickerson, Levy, Hayes, Gorham, Johnson, Guynup, Rueb, Hill, Connor, Wilson, Dougherty.

The billard tournament has just closed. Mr. Julius Melgord won first prize, and Mr. S. H. Quarles second. The finals in the pool tournament are now being played.

On Sunday evening, May 3, there will be a sacred concert in the Commission club house, at 8 o'clock, by the Lyric Entertainers. No admission will be charged, and it is hoped all the people of Empire will be present.

The men are at work in preparation for the athletic meet that is to be held at Gorgona on May 30. The baseball park has been placed at the disposal of the athletes, where they may be found at earnest practice on Monday, Wednesday and Friday evenings at 5 o'clock.

LIABILITY OF EMPLOYERS.

The New Law Recently Enacted by Congress.

The subjoined bill relating to liability of common carriers by railroad to their employes was passed by the House of Representatives at Washington on April 6 with a single dissenting vote, that of Mr Littlefield of Maine, and by the Senate on April 9 without a division. It was signed by the President on April 22. This is not the bill which was printed in THE CANAL RECORD of February 26, which was entitled a "Bill to Compensate Civilian Employes for Personal Injury in Line of Service," and which included employes of the Isthmian Canal Commission and the Panama railroad Employes of the Panama railroad are included in the bill which was passed, but employes of the Commission are not included:

An Act Relating to the Liability of Common Carriers by Railroad to Their Employes in Certain Cases.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That every common carrier by railroad while engaging in commerce between any of the several States or Territories, or between any of the States and Territories, or between the District of Colombia and any of the States or Territories, or between the District of Colombia or any of the States or Territories and any foreign nation or nations, shall be liable in damages to any person suffering injury while he is employed by such carrier in such commerce, or, in case of the death of such employe, to his or her personal representative, for the benefit of the surviving widow or husband and children of such employe, and, if none, then of such employe's parents, and, if none, then of the next of kin dependent upon such employe, for such injury or death resulting in whole or in part from the negligence of any of the officers, agents, or employes of such carrier, or by reason of any defect or insufficiency, due to its negligence, in its cars, engines, appliances, machinery, track, roadbed, works, boats, wharves, or other equipment.

SEC. 2. That every common carrier by railroad in the Territories, the District of Columbia, the Panama Canal Zone, or other possessions of the United States shall be liable in damages to any person suffering injury while he is employed by such carrier in any of said jurisdictions, or, in case of the death of such employe, to his or her personal representative, for the benefit of the surviving widow or husband and children of such employe; and, if none, then of such employe's parents; and, if none, then of the next of kin dependent upon such employe, for such injury or death resulting in whole or in part from the negligence of any of the officers, agents, or employes of such carrier, or by reason of any defect or insufficiency, due to its negligence, in its cars, engines, appliances, machinery, track, roadbed, works, boats, wharves, or other equipment.

SEC. 3. That in all actions hereafter brought against any such common carrier by railroad to recover damages for personal injuries to an employe, or where such injuries have resulted in his death, the fact that the employe may have been guilty of contributory negligence shall not bar a recovery, but the damages shall be diminished by the jury in proportion to the amount of negligence attributable to such employe: *Provided*, That no such employe who may be injured or killed shall be held to have been guilty of contributory negligence in any case where the violation by such common carrier of any statute enacted for the safety of employes contributed to the injury or death of such employe.

SEC. 4. That in any action brought against any common carrier under or by virtue of any of the provisions of this Act to recover damages for injuries to, or the death of, any of its employes, such employe shall not be held to have assumed the risks of his employment in any case where the violation by such common carrier of any statute enacted for the safety of employes contributed to the injury or death of such employe.

SEC. 5. That any contract, rule, regulation, or device whatsoever, the purpose or intent of which shall be to enable any common carrier to exempt itself from any liability created by this Act, shall to that extent be void: *Provided*, That in any action brought against any such common carrier under or by virtue of any of the provisions of this Act, such common carrier may not set off therein any sum it has contributed or paid to any insurance, relief benefit, or indemnity that may have been paid to the injured employe or the person entitled thereto on account of the injury or death for which said action was brought.

SEC. 6 That no action shall be maintained under this Act unless commenced within two years from the day the cause of action accrued.

SEC. 7. That the term "common carrier" as used in this Act shall include the receiver or receivers or other persons or corporations charged with the duty of the management and operation of the business of a common carrier.

SEC. 8. That nothing in this Act shall be held to limit the duty or liability of common carriers or to impair the rights of their employes under any other Act or Acts of Congress, or to affect the prosecution of any pending proceeding or right of action under the Act of Congress entitled "An Act relating to liability of common carriers in the District of Columbia and Territories, and to common carriers engaged in commerce between the States and between the States and foreign nations to their employes," approved June eleventh, nineteen hundred and six.

OFFICIAL CIRCULARS.

Change of Time.

CIRCULAR NO. 167.

The Panama Railroad Company will change its time on Monday, April 27, 1908, at 12 01 a. m., and the corrected time will be fifty-four minutes fast of the present time—*i.e.*, at 12 01 a. m on the date mentioned, the time will be advanced to 12.55 a. m.

Panama Railroad time will be observed by all departments and divisions of the Isthmian Canal Commission on the Isthmus.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, April 24, 1908.

Inspection of Shops and Machinery.

CIRCULAR NO. 165:

TO HEADS OF ALL DEPARTMENTS AND DIVISIONS:—Mr. Geo. D. Brooke is hereby appointed, in addition to, and independent of, his duties as Superintendent of Motive Power and Machinery, to act as my representative in inspecting all shops, plant and machinery and the handling and operation of same in all divisions of the Isthmian Canal Commission and also of the Panama railroad. Heads of Departments and Divisions will furnish him every facility and all information necessary for the performance of these duties and it is desired that they shall freely confer with him on same.

Mr. Brooke will report directly to me on all matters covered by the above. He is authorized to use any assistance necessary in the performance of these duties.

GEO. W. GORTHALS,
Chairman and Chief Engineer,
Isthmian Canal Commission
President, Panama Railroad Company.

Culebra, April 21, 1908

Leaves of Absence With Pay.

CIRCULAR NO. 132—C.

The following interpretation of the old rules governing leaves of absence with pay, limiting cumulative leave to 84 days, is published for the information of all concerned:

All employes who preferred to stay on the Isthmus more than two years without a leave of absence will be considered as having accrued no leave between the end of the two-year period and the effective date of their leave of absence, when granted, and will be allowed no leave for such intervening period. In such cases, the new service year for which leave may again be granted, shall commence on the effective date of the leave granted after such full two-year period.

In cases where employes were not allowed, by proper authority, to go on leave of absence at the end of a two-year period, such employe may, with the approval of the Chairman, be granted leave for the interim between the end of the two-year period and the effective date of the 84 days' leave after such two-year period, at the rate of three and one-half days per month. The leave for this intervening period, if approved by the Chairman, will be added to the leave granted for the new service year, which shall be reckoned as indicated above.

GEO. W. GOETHALS,
Chairman.

Culebra, April 27, 1908.

Prompt Removal of Freight.

CIRCULAR NO. 166:

Attention is called to the fact that consignments of freight for various departments and divisions are frequently allowed to remain on platforms for a considerable time, or are stored underneath freight houses or other buildings owned by the railroad

It is directed that when notice is received of freight shipments, the same shall be promptly removed from freight houses to suitable storage places belonging to the Commission. The practice of storing freight around railroad buildings must be discontinued, and all freight which has been stored in this way must be immediately removed.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, April 23, 1908.

NOTICE.

Bubonic Plague.

Rats and mice are the common carriers of Bubonic Plague, because of their being infested with fleas, whose bites produce this disease in human beings.

In order to keep Bubonic Plague out of this community, it shall be the duty of all persons to use their best efforts towards the extermination of all rats and mice found on their premises, then the fleas will soon disappear, and the danger of the spread of the Bubonic Plague will be lessened.

All rats killed should be turned over to the Health Department.

By order of

THE SANITARY DEPARTMENT.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, April 29, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Armstrong, P. C.
Atkins, John
Benson, Aaron
Cheney, Jno. W.
Connors, Katherine
Curry, Jas E.
Emanuel, Miss A.
Fagan, Samuel
Flathers, J. Elmer
Floyd, H. J.
Friedenheim, F. M.
Gabler, A. F.
Haight, Dr. N. H.
Hartigan. Fred L.
Herman, Lester E.
Hill, Donald
Hoffman, Mrs. Otto
Holman, F. C.
Kent, T L.
Leonard, Mary J.
Loveless, Mrs M.
Lumby, Mrs. Geo.
McClellan, Jno
Murray, Jas W.
Sankuer, Jos. V.
Severight, Mrs. H B.
Swain, Mrs. Joe M.
Walker, Miss Virginia M.
Webster, Mrs. S.
Windes, Mrs. Norment

The following steamers have recently arrived at La Boca: April 19, *San Jose* from San Francisco; April 20, *Mackinaw* from Central America; April 23, *Palena* from Valparaiso; April 24, *Barracouta* and *Denderah* from Central America. Departures were: April 23, *Guatemala* for Valparaiso.

The steamship *Indianapolis* left Brunswick, Ga , on April 17, with a cargo of cross-ties and six steel barges for the Commission.

Double Crew on Gatun Dredge.

The 20-inch suction dredge that is at work at Gatun, removing the soft material on the site of the dam, will have a double crew at work in the near future. This will enable the dredge to be worked for 16 hours per day instead of 8 hours.

The Pan-Hellenic Society will give a German at the Hotel Tivoli on the evening of May 2.

COMMISSARY DEPARTMENT.

NOTICE.

On and after Sunday, April 5, the Commissaries will not be open for business on Sundays or Legal Holidays. Purchases should be made on Saturday or the day preceding a holiday.

JOHN BURKE,
Manager.

COMMISSARY PRICES

For week ending April 28

FRESH MEATS		Price. CTS
Beef—Sirloin roast	per lb	28
Rump roast	do	28
Porterhouse	do	28
Rib-roast, short-cut, (not under 3½ pounds	do	20
Rib-roast, second cut	do	17
Chuck-roast	do	13
Soup	do	7
Stew	do	12
Corned	do	10, 12 14
Suet	do	*4
Steaks—Sirloin	do	28
Porterhouse	do	28
Rump	do	28
Round	do	20
Veal—Cutlets	do	24
Short-cut chops	do	24
Loin	do	23
Entire forequarters	do	11
For stewing	do	11
Mutton—Entire forequarters	do	9
Short-cut chops	do	20
Leg	do	†18
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	30
Legs	do	†28
Pork—Cuts	do	20

MISCELLANEOUS.		
Livers—Beef	per lb...	10½
Sausage—Pork	per lb...	16
Sweet bread—Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues	per lb...	24
Ox tongues	each...	90

POULTRY AND GAME.		
Chickens, dressed (milk-fed),	each...	†1.50
Chickens, roast	do	1.15
Fowls	do	1.10
Ducks, fatted (fancy)	do	1.15
Suckling pigs	do	4.90
Turkeys	per lb...	26
Squabs	do	35
Broilers (chicken frys)	each...	90
Eggs, fresh	per doz...	28
Geese (10 lbs)	each...	2.00

CURED MEATS AND LARD.		
Bacon—Strips	per lb...	23
English breakfast, sliced	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45
Whole, Ferris	do	19
Tropical	do	18

DAIRY PRODUCTS.		
Butter—prints, prime quality	per lb...	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	33
Gouda	do	34
Edam	each...	1.05
Camembert	do	28
Pinxter's	tin...	22
Milk, Briarcliff	quart..	**25

FRUITS AND VEGETABLES.		
Pineapples	each...	16
Oranges	per doz...	12
Grape Fruit	each...	4
Lemons	per doz...	15
Apples	per lb...	†7
Beets	per lb...	†6
Parsnips	per lb...	4
Celery	bunch...	30
White potatoes	per lb...	3
Wax beans	per lb...	25
String beans	do	25
Onions	per lb...	3½
Cucumbers	per lb...	28
Sweet potatoes	do	2½
Turnips, Rutabagas	per lb...	4½

* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from Commissaries.*

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	*New Price.* CTS.
Brown bread, Ind· size.	do	6	7
Kerosene oil, 5-gals	do	90	95
Almonds, sugared, Valencia	lb	40	20
Uneeda ginger wafers	do	10	5
Washstands, oak, stock No. 39,422	ea	5.00	5.70
Olives, Premier, 6-oz	bot	12	14
Arrowroot biscuits, in bulk	lb	15	8

NEW ARTICLES		*Price* CTS
Check Dimity, 28 in stock No 41,781	do	30
Cambric, embroideries, stock No. 41,782	do	17
Cambric, embroideries, stock No. 41,783	do	24
Cambric, embroideries, stock No. 41,784	do	8
Cambric, embroideries, stock No 41,785	do	13
Cambric, embroideries, stock No. 41,786	do	16
Cambric, embroideries, stock No. 41,787	do	07
Cambric, embroideries, stock No. 41,788	do	20
Cotton, Amoskeag, seersucker, 27 inches, stock No. 41,852	yard...	13
Bands, arm, silk, easy, stock No. 41,853	each...	10
Amoskeag gingham, stock No. 41,854	yard...	8
Knives, bread, No. 308, stock No. 41,856	each...	10
Corsets, stock No. 41,857	do	90
Corsets, No. 456, stock No. 41,858	do	1.60
Corsets, No. 459, stock No. 41,859	do	1.90
Hose supporters, No. 429, stock No. 41,861	do	25
Hose supporters, No. 355, stock No. 41,862	do	25
Batiste, French, white, stock No. 41,663	do	40
Oil cloth, white, stock No. 41,864.	piece...	2.20
Crumb-tray brushes, No. 116, stock No. 41,865	each..	25
Cigarette paper, Zig Zag, No. 147, stock No. 41,866	book..	4
Vinegar, Crescent	gal...	20
Special thick peppermint, pipe	per lb...	20
Tobacco, chewing, Star, stock No. 41,794 per lb., 60c.	space...	10
Drill, Brown, Eagle, stock No. 41,795	yard...	10
Sheeting, brown, Abbernelle, stock No. 41,796	do	10
Lamps, hanging, Rochester, stock No. 41,801	each...	3.00
Pans, frying, enamelled, No. 0, stock No. 41,802	do	12
Pans, frying, enamelled, No. 2, stock No. 41,803	do	17
Pans, frying, enamelled, No 4, stock No. 41,804	do	20
Pans, frying, enamelled, No. 5, stock No. 41,805	do	25
Pans, frying, enamelled, No. 7, stock No. 41,806	do	31
Basins, wash, enamel ware, 15 in., stock No 41,807	do	30
Basins, wash, enamel ware, 15 in., stock No. 41,808	do	45
Corset cover embroidery, No. 71,583, stock No. 41,809	yard...	80
Beading, No. 44 454, stock No 41,811	do	6
Beading, No. 44,471, stock No 41,812	do	10
Beading, No. 34,918, stock No 41,813	do	10
Beading, No. 73,881½, stock No. 41,814	do	13
Beading, No. 44 475, stock No. 41,815	do	13
Beading, No. 345-5, stock No. 41,816	do	10
Allover, No. 58,048, stock No. 41 817	do	1 30
Edges, cambric, No. 70,586, stock No. 41,818	do	10

PANAMA RAILROAD COMPANY

TIME TABLE No. 1

IN EFFECT MARCH 1st, 1908

SOUTH BOUND			Distance from Colon	MAIN LINE	Distance from Panama	NORTH BOUND			
No. 7 Pass.	No. 5 Pass.	No. 3 Pass.		*S Stop* *F Flag Station*		No. 2 Pass.	No. 4 Pass.	No. 6 Pass.	No. 8 Pass.
Daily	Daily	Daily		STATIONS		Daily	Daily	Daily	Daily
Leave	Leave	Leave	Miles		Miles	Arrive	Arrive	Arrive	Arrive
P. M.	A. M.	A. M.				A. M.	P. M.	P. M.	P. M.
4.35	10.30	5.30	00	† COLON	47.58	9.05	1.00	3.50	8.00
s 4.37	s 10.33	s 5.32	0.42	Cristobal	47.16	s 9.03	s 12.57	s 3.47	s 7.57
s 4.43	f 10.37	s 5.38	1.90	Mount Hope	45,68	s 8.58	12.53	3.42	s 7.52
f 4.48	10.43	f 5.44	4.52	Mindi	43 06	f 8.50	f 12.46	f 3.35	f 7.45
s 4.55	s 10.50	s 5.50	7.08	Gatun	40.50	s 8.43	s 12.40	s 3.30	s 7.40
4 56	10 51	5.51	7.20	† Gatun (cabin)	40 38	8.40	12.37	3.26	7.36
f 5.03	f 11.00	5.58	10.68	Lion Hill	36 90	8.33	f 12.30	3.19	f 7.29
f 5.08	f 11.06	6.03	12.75	Ahorca Lagarto	34.83	8.27	f 12.24	3 13	f 7.22
s 5.15	s 11.13	s 6.10	15.52	† Bohio	32 06	s 8.20	s 12.17	s 3.05	s 7.15
s 5.23	s 11.22	6.18	18.75	† Frijoles	28.83	s 8.10	f 12.08	2.58	s 7.06
s 5.31	s 11.31	s 6.26	21.62	Tabernilla	25.96	s 8.03	P. M. s 11.58	s 2.50	s 6.58
5 32	11.32	6 27	21.86	† Tabernilla (cabin)	25.72	8 02	11.56	2.49	6.57
5.35	11.35	6.30	22.84	Barbacoas	24.74	8.00	11.54	2.47	6.55
s 5.37	s 11.37	s 6.32	23.56	San Pablo	24.02	s 7.58	s 11.52	s 2.46	s 6.53
5.38	11.38	6.33	24.00	† San Pablo (cabin)	23.58	7.57	11.51	2.45	6.52
f 5.40	f 11.40	6 35	24.57	Bailamonos	23.01	7.54	f 11.48	2.43	f 6.50
s 5.45	s 11.45	s 6.40	26.02	† Mamei	21.56	s 7.50	s 11.45	2.40	s 6.47
5.49	11.50	6.45	28.22	† Gorgona (cabin)	19 36	7.42	11.38	2.33	6.38
s 5.53	s 11.53	s 6.49	28 53	† Gorgona	19.05	s 7.41	s 11.37	s 2.32	s 6.37
s 5.58	s 11.58	s 6.54	29.90	† Matachin	17.68	s 7.36	s 11.32	2.27	s 6.32
6 00	P. M. 12 01	6.56	30.70	† Bas Obispo (cabin)	16.88	7.33	11 28	2.24	6.28
s 6.03	s 12.03	s 6.59	31.26	Bas Obispo	16.32	s 7.32	s 11.27	s 2.23	s 6.27
6.05	12.05	7.01	31 98	† Bridge 52 (cabin)	15 60	7 29	11.24	2.20	6 24
s 6.09	s 12.09	s 7.05	32.83	Las Cascadas	14.75	s 7.26	s 11.20	s 2.17	s 6.21
6.11	12 11	7.07	33.49	† White House (cabin)	14.09	7.22	11.17	2 13	6.17
s 6.17	s 12.17	s 7.14	35.18	† Empire	12.40	s 7.17	s 11.13	s 2.10	s 6.14
s 6.22	s 12.22	s 7.19	36.18	Culebra	11.40	s 7.10	11.08	s 2.00	s 6.10
6 23	12 23	7.20	36.27	† Culebra (cabin)	11.31	7.09	11.06	1.59	6 09
6.30	12.30	7.26	39.04	Cucaracha	8 54	7.00	10.57	1.51	5.57
s 6.32	s 12.32	s 7.28	39.78	Paraiso	7.80	s 6.58	f 10.56	1.50	f 5.56
s 6.37	s 12.38	s 7.31	40.72	Pedro Miguel	6.86	s 6.54	s 10.52	s 1.48	s 5.52
6.38	12.39	7.32	41.09	† Pedro Miguel (cabin)	6.49	6.52	10.51	1.46	5.50
s 6.42	s 12.43	s 7.35	42.08	† Miraflores (cabin)	5.50	s 6.50	s 10.48	f 1.44	s 5.48
s 6.50	s 12.50	s 7.40	44.55	† Corozal	3.03	s 6.43	s 10.40	s 1.38	s 5.40
6.55	12.56	7.45	46.75	† La Boca Junct.	0.83	6.38	10.33	1.32	5.33
7.00	1.00	7.50	47.58	† PANAMA	00	6.35	10.30	1.30	5.30
P. M.	P. M.	A. M.		† *Telegraph Stations*		A. M.	A. M.	P. M.	P. M.
Arrive	Arrive	Arrive				Leave	Leave	Leave	Leave

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ISTHMIAN CANAL COMMISSION.

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Maj. Wm. L. Sibert, U. S. A., Culebra.

Civil Engineer H. H. Rousseau, U. S. N., Culebra.

Mr. Jo C. S. Blackburn, Ancon.

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Mr. Jackson Smith, Culebra.

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Wm. Krugel, Stationer and Printer, Ancon

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H. D. Reed, Executive Secretary, Ancon.

J. K. Baxter, Chief Clerk, Ancon.

Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon

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E. Lewis Baker, Deputy Collector, Cristobal.

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C. R. Sargent, Chief Clerk.

David C. O'Conner, Superintendent of Schools, Ancon.

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H. A. Gudger, Associate Justice, Empire.

Loria C. Collins, Associate Justice, Cristobal.

Walter Emery, Clerk of Court, Ancon.

Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.

Walter Emery, Circuit Court Clerk, Ancon.

Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,

Elbert M. Goolsby, Circuit Court Clerk, Empire.

Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.

Nelson R. Johnson, Circuit Court Clerk, Cristobal.

Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.

Prosecuting Attorney: George M. Shontz, Ancon.

M. C. Rerdell, Senior District Judge, Cristobal

Thomas E. Brown, jr., District Judge, Cristobal.

S. E. Blackburn, District Judge, La Boca.

Edgar S. Garrison, District Judge, Empire.

R. C. Goodale, District Judge, Gorgona.

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Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.

Harry E. Bovay, Chief Clerk

H. R. Carter, Director of Hospitals, Ancon.

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Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.

Capt. Alexander Murray, U. S. A., Asst. to the Supt.

J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.

Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.

Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.

Dr. Fleetwood Gruver, Quarantine Officer, Panama.

Dr. John H. Purnell, Health Officer, Panama.

Dr. M. E. Connor, Health Officer, Colon.

Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

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R. E. Wood, Assistant Manager, Culebra

S. C. Klauber, Chief Clerk.

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Charles L. Parker, Superintendent, Gorgona Division, Gorgona.

Edgar Lowe, Superintendent, Cristobal Division, Cristobal.

C. C. McColley, Superintendent, Culebra Division, Empire.

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Examiner of Accounts.

H. L. Stuntz, Empire.

W. D. Mabry, Chief Clerk.

Panama Railroad Company.

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W. G. Tucker, Secretary, Colon.

Commissary Department

John Burke, Manager, Cristobal.

P. T. Murphy, Asst. Manager, Cristobal.

Purchasing Department.

Headquarters, Washington, D. C., U. S. A.

Lieut.-Col. H. F. Hodges, U. S. A., General Purchasing Officer.

C. E. Dole, Chief Clerk

F. C. Nordsick, Asst. Purchasing Agent, 24 State Street, New York City.

S. E. Redfern, Asst. Purchasing Agent, Custom House, New Orleans, La.

W. G. Tubby, Purchasing Agent on the Isthmus, Cristobal, Canal Zone

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON

Allianca	P. R.R.	Thursday	April	23
Prinz Aug. Wilhelm	H.-A.	Saturday	April	25
Finance	P. R.R.	Tuesday	April	28
Prinz Sigismund	H.-A.	Friday	May	1
Atrato	R.-M.	Saturday	May	2
Esperanza	P. R.R.	Monday	May	4
Advance	P.R.R.	Saturday	May	9
Prinz Joachim	H.-A.	Saturday	May	9
Panama	P.R.R.	Thursday	May	14
Pr. Eitel Friedrich	H.-A.	Friday	May	15
Trent	R.-M.	Saturday	May	16
Allianca	P. R.R.	Tuesday	May	19
Prinz Aug. Wilh'lm	H.-A.	Saturday	May	23
Finance	P. R.R.	Monday	May	25
Prinz Sigismund	H.-A.	Friday	May	29
Tagus	R.-M.	Saturday	May	30

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon

FROM COLON TO NEW YORK

Advance	P. R.R.	Sunday	April	26
Prinz Joachim	H.-A.	Tuesday	April	28
Panama	P. R.R.	Friday	May	1
Pr. Eitel Friedrich	H.-A.	Tuesday	May	5
Trent	R.-M.	Tuesday	May	5
Allianca	P. R.R.	Wednesday	May	6
Finance	P. R. R.	Monday	May	11
Prinz Aug. Wilh'lm.	H.-A.	Tuesday	May	12
Esperanza	P. R.R.	Saturday	May	16
Tagus	R.-M.	Tuesday	May	19
Advance	P. R.R.	Friday	May	22
Prinz Joachim	H.-A.	Tuesday	May	26
Panama	P.R.R.	Wednesday	May	27
Allianca	P. R. R.	Monday	June	1
Magdalena	R.-M.	Tuesday	June	2
Finance	P.R.R.	Saturday	June	6

FROM NEW ORLEANS TO COLON

Harry T. Inge	U.F.C.	Saturday	April	25
Ellis	U.F.C.	Saturday	May	2
Preston	U.F.C.	Saturday	May	9
Harry T. Inge	U. F.C.	Saturday	May	16
Ellis	U.F.C.	Saturday	May	23

FROM COLON TO NEW ORLEANS

Harry T. Inge	U.F.C.	Tuesday	May	5
Ellis	U.F.C.	Tuesday	May	12
Preston	U.F.C.	Tuesday	May	19
Harry T. Inge	U.F.C.	Tuesday	May	26

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Atrato	R.-M.	Tuesday	May	12
Trent	R.-M.	Tuesday	May	26
Tagus	R.-M.	Tuesday	June	9

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston Jamaica, for New York

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's Line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company despatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Antillian*, about May 16, and *Louisianian*, about May 25.

Isthmian Baseball League.

Scores, April 26, 1908:

At Ancon Park: Ancon, 5; Empire, 4.

At Empire Park: Kangaroos, 3; Culebra, 1.

At Gorgona Park: Gorgona, 15; Marines, 1.

STANDING OF THE LEAGUE.

April 27, 1908:

	Played.	*Won.*	*Lost.*	*Per cent.*
Ancon	17	15	2	882
Empire	17	13	4	765
M. P. & M	17	13	4	765
Culebra	17	8	9	471
Kangaroos	18	7	11	389
Gorgona	17	3	14	176
Marines	17	1	16	059

To be played May 3, 1908:

At Ancon Park: M. P. & M. vs. Marines

At Empire Park: Kangaroos vs. Ancon.

At Gorgona Park: Gorgona vs. Culebra.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, MAY 6, 1908. No. 36

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

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Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Fresh Strawberries.

The experiments which the Commissary has made during the last few weeks to secure, by way of New Orleans, fresh strawberries have not been successful. The shipments have been nearly, or quite, a total loss. It has been decided not to attempt any further shipments until the Norfolk crop is put on the market, which will be about the 10th of May, the crop being about ten days or a fortnight behind the usual time this year. After the 10th of May, it is the intention of the Commissary to have regular shipments so long as the season lasts.

April Excavation.

The grand total of excavation during the month of April was 3,296,096 cubic yards. This was 184,174 cubic yards less than the grand total for March. There were in March 26 working days and in April 25. Of the total April excavation, 3,040,366 cubic yards were taken from the Canal prism, 1,867,461 cubic yards by steam shovels, and 1,172,905 cubic yards by dredges. From the Culebra Division there were removed 1,170,872 cubic yards, and from accessory works 71,701 cubic yards, making a total from that division of 1,242,573 cubic yards; from the Mindi Division, all within the Canal prism, 67,436 cubic yards were removed; in the Chagres Division, all from the Canal prism, 329,483 cubic yards.

From the Gatun locks and spillway there were taken by steam shovels 373,456 cubic yards, of which, 177,347 cubic yards were from accessory works; from the Miraflores locks there were taken 92,261 cubic yards, all within the Canal prism. Of the grand total of excavation at all points there were removed by steam shovels 2,123,191 cubic yards, and by dredges, all from the Canal prism, 1,172,905 cubic yards.

Of the April total by dredges, 676,539 cubic yards were taken from the La Boca Division and 496,366 cubic yards from the Colon Division, all from the Canal prism. The total excavation for the month is appended:

Department of Excavation and Dredging.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Culebra Division.	1,170,872	71,701	1,242,573
Mindi..................	67,436	....	67,436
Chagres Division	329,483	....	329,483
Cardenas Hill.....	11,300	....	11,300
Total............	1,579,091	71,701	1,650,792
Dredges—			
Colon Dredging Division..........	496,366	....	496,366
La Boca Dredgi'g Division..........	676,539	....	676,539
Total..........	1,172,905	....	1,172,905
Grand total.....	2,751,996	71,701	2,823,697

Department of Lock and Dam Construction.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Gatun locks........	196,109	29,358	225,467
Gatun spillway..	....	147,989	147,989
Miraflores locks.	92,261	....	92,261
Miraflores Dam (Spillway).......	....	6,682	6,682
Total......	288,370	184,029	472,399

Total Excavation, Entire Canal.

How excavated.	In Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
By steam shov'ls	1,867,461	255,730	2,123,191
By dredges.........	1,172,905	....	1,172,905
Total...........	3,040,366	255,730	3,296,096

Mean rainfall along Canal (11 stations), 1.9 inches.

Figures of monthly excavation are based upon telephone reports from division engineers and are subject to slight alterations when official reports are received

Commissary Improvements.

On May 1, the Commissary Department began the installation of a dry cold storage system on the second story of its cold storage plant. As soon as this is completed it is intended to secure for sale on the Isthmus, meats known as "mild cured," rather than the "highly cured" products that are put up specially for tropical countries and that are supplied by the Commissary at present. There will also be carried in this dry cold storage department all classes of cereals, besides raisins, currants, and other dried fruits, the freshness of which will thus be guaranteed at all times.

A forty-foot addition to the laundry at Cristobal is nearly completed, and it is expected that the machinery will be in place by May 4. This will furnish the department with as complete a laundry as can be found anywhere, and will insure the continuance of good service.

Commissary Cake and Pie Service.

The cake and pie service, which was begun by the Commissary Department on April 20, has evidently met a quite general demand. There are produced at present about six hundred pies and four hundred pounds of cake per day. There are seven varieties of pies, one for each day in the week, and as many varieties of cake. The daily schedule for the present week is as follows:

Monday, pie, apple; cake, jelly squares.
Tuesday, pie, mince; cake, loaf.
Wednesday, pie, peach; cake, ribbon.
Thursday, pie, plum; cake, pound.
Friday, pie, apricot; cake, wine.
Saturday, pie, green-gage; cake, chocolate squares.
Sunday, pie, fig; cake, diamond jelly.

Of the cake supply, pound and loaf are in large form, and all the rest are small. The pies are sold at ten cents each, and the cakes at ten cents per pound. Special orders for the delivery of cake of any particular kind desired will receive prompt attention. The pie and cakes are baked daily, and are furnished fresh each day to the local commissaries.

Surplus Zone Water Supply.

The supply of water remaining in the reservoirs of the Zone on May 1, at the end of the dry season, shows that there is still enough water available for a much longer period. The four main reservoirs contain at the present time, in round numbers, about 562,000,000 gallons and the combined demand per day, amounts to about 5,200,000 gallons.

The amount of water in each of the four reservoirs, the amount used from each per day, and the number of additional days the supply would have lasted are as follows:

Reservoir	Available Supply Gallons	Daily Demand Gallons	Additional Days Supply
Brazos Brook (Colon)......	132,000,000	1,200,000	110
Rio Grande (Panama)..	250,000,000	2,200,000	113
Camacho (Empire)....	130,000,000	1,000,000	130
Gorgona.......	50,000,000	800,000	62

The investigation of the changes that have taken place in the waters of the reservoirs during the dry season shows the results brought about by evaporation and sedimentation in reducing germ life. At the

NOTES OF PROGRESS.

(Continued)

beginning of the dry season the reservoirs are full of water that has only recently entered. As the dry season advances the mineral and organic constituents, that are present in all natural waters, increase because of the concentration brought about by evaporation. This does not mean that the water is less pure or wholesome.

The tests made of the water show that at the Rio Grande reservoir the percentage of increase of alkalinity (carbonate of calcium and magnesia), due to evaporation is 40 per cent.; at Camacho there is an increase of 36 per cent.; at Gorgona 30 per cent., and Brazos Brook 26 per cent. The total solid present in the water due to the same cause also shows an increase, at Rio Grande of 20 per cent.; at Camacho 9 per cent.; at Gorgona 20 per cent., and Brazos Brook 13 per cent. At Rio Grande, Camacho and Gorgona the color of the water decreased, while at Brazos Brook there has been a decided increase, due to the increased iron in solution. The chlorine content shows a uniform increase of about 40 per cent.; the organic content a slight increase, and the iron content an increase at Gorgona and Brazos Brook, while it remains nearly uniform at the other two reservoirs. The bacterial content of all the reservoirs during the dry season is lower than during the rainy season. This is due to the fact that very little water is entering the reservoirs, surface wash is almost nothing, and the sedimentation that takes place carries down the bacterial flora.

Panama Steamship Reservations.

Due to the number of employes who are contemplating taking vacations during the next five months, the following should be complied with in order that the employes may be sure of securing passage on the first Panama railroad steamship sailing after vacation is effective.

Request for reservation should be made to A. S. Mendes, Ticket Agent, Panama railroad, Colon, as long in advance of scheduled sailing as possible. Assignment of rooms will be made in the order that the request for reservation is received, and assignment will be held and no tickets sold until the boat arrives at Cristobal.

Immediately after the arrival of the steamship at the dock at Cristobal, the agent will accept moneys and issue tickets in the order of their receipt, without regard to previous reservations of space.

Reservations will only be held until the boat arrives at Cristobal.

Gatun Steam Shovel Work.

The maximum daily output of the seven steam shovels working at the Gatun lock site for the week ending April 25, was made on Saturday, April 18, when 8,692 cubic yards, car measurement, were excavated, an average of 1,242 cubic yards per shovel.

During the same period the five shovels at the spillway excavated a total of 40,200 cubic yards, an average of 8,040 cubic yards per shovel. The maximum daily output for the five shovels was made on Monday, April 20, when 8,196 cubic yards were removed, an average of 1,639 cubic yards per shovel. The best record for the week was made by shovel No. 119, with a total of 11,004 cubic yards, an average of 1,834 cubic yards per day. The highest daily record for the week was made by shovel No. 119, on Saturday, April 25, when 2,664 cubic yards were removed.

At Mindi, the two steam shovels at work excavated a total of 16,212 cubic yards for the week ending April 25, an average of 8,106 cubic yards per shovel. The maximum daily output by the two shovels for the week was on Wednesday, April 20, when 3,070 cubic yards were removed, an average of 1,535 cubic yards per shovel. The best record for the week was made by shovel No. 103, with a total of 8,485 cubic yards, an average of 1,414 cubic yards per day. The highest daily record for the week by either of the two shovels was made by shovel No. 103 on Thursday, April 21, when 1,780 cubic yards were removed.

Concerning Canal Medals.

The Canal Record:

I have read in The Canal Record the suggestions of Commissioners Rousseau and Smith for a design for medals which President Roosevelt promised Canal employes when he was on the Isthmus in 1906. As an old timer, enlisted in the Department of Civil Administration on May 4, 1904, in Washington, I wish to express my views in regard to these medals.

My idea as to the size of the medal is that it should be as large as a ten dollar gold piece. It should be made, as suggested by the committee, of old French scrap iron taken from the material on the Isthmus. One side of the medal should show a print of the features of President Roosevelt, and the name of the holder. My opinion is that President Roosevelt is the father of the I. C. C. project, and that we should honor him as much as possible in this badge, as he suggested it, and this badge will go down in history held by those who obtain them, as souvenirs of industry, loyalty and hard work in building the Panama Canal.

The other side of the medal should contain, as suggested, the coat of arms of the Canal Zone Government, and the date of appointment of the employe to whom it is issued, with the initials of the Department in which employed; and I would also suggest that there be attached to the medal one bar for each year of service of the employe, with the date and year on bar of each year served; and that this medal be so constructed that it could be either used as a badge or worn as a watch fob

Very respectfully,

George R. Shanton,
Chief of Police.

Employes Anniversary Dinner.

The fourth anniversary of the commencement of Canal construction by the United States occurred on May 4, and the event was celebrated by a dinner at the Hotel Tivoli, given by the employes of the Isthmian Canal Commission who came to the Isthmus during the months of May, June and July, 1904. An excellent menu was prepared for the occasion, covers being laid for thirty. Colonel Gorgas officiated as chairman of the evening. After the dinner the proposition to form a permanent organization was discussed, and resulted in the election of Colonel Gorgas, chairman; H. D. Reed, secretary, and Dr. J. P. Bates, treasurer, these three also to constitute an executive committee with full power to act regarding membership, date of next annual dinner, etc. It was resolved to adopt the name of "Incas" for the new association. The remainder of the evening was devoted to the recital of reminiscenses by those present, largely drawn from personal experiences during the early days of American operations. The guests were:

Col. W. C. Gorgas, H. D. Reed, Judge H. A. Gudger, Capt. Geo. R. Shanton, A. C. Harper, Geo. D. Brooke, A. B. Nichols, Ernest Lagarde, jr., E. C. Cummings. W. B. Ruggles, Judge M. C. Kerdell, Dr. J. C. Perry, Dr. A. B. Herrick, Dr. T. C. Lyster, Dr. J. P. Bates, P. O. Wright, jr., Dr. William F. Smith, Dr. H. F. Summersgill, Dr. Lloyd Noland, Herman A. Gudger, Walter Emery, J. M. Maguire, M. W. Tenny, M. B. De Putron, Chas. L. Parker, W. C. Haskins, S. W. Settoon, E. C. McFarland, D. E. McDonald and C. L. Stockelberg.

Zone Liquor Licenses.

Isthmian Canal Commission,
Department of Civil Administration,
Division of Posts, Customs and Revenues,
Ancon, C. Z., April 30, 1908.

The Isthmian Canal Commission has authorized the issuance of liquor licenses in the Canal Zone for the year commencing July 1, 1908, at Rio Grande, Culebra, Empire, Las Cascadas, Bas Obispo, Matachin, Gorgona, Tabernilla, Bohio and Gatun.

The areas within which saloons may be located are as follows:

Rio Grande—On the west side of the old line of the Panama railroad, facing the railroad, in line with the saloons at present licensed there.

Culebra—On either side of the main street of the new town on the French dump east of the Panama railroad passenger station.

Empire—The area bounded by Second avenue, Main street, Seventh avenue and Front street.

Las Cascadas—The section known as the new town, where private houses are now located, on the west side of the Panama railroad.

Bas Obispo—On the west side of the Panama railroad, in line with the buildings in which three saloons are now located.

Matachin—On the main street of the town, on the east side of the Panama railroad, in line with the buildings in which saloons are now located.

Gorgona—Area bounded by 2nd street, Avenue A, 5th street and Central avenue; but no saloons will be permitted to face on Central avenue.

Tabernilla—On the front street of the town, east of the Panama railroad, facing the railroad and running a distance of about 500 feet in a northerly direction from the building in which a saloon is at present located, north of the Panama railroad passenger station.

Bohio—On the main street of the town, on the west side of the Panama railroad, fronting the railroad.

Gatun—Blocks 7 and 8 of the new town laid out by the Panama Railroad Company,

The areas prescribed are indicated on maps which may be seen at the offices of the Collector of Revenues, Ancon, and the Tax Collectors at Empire, Gorgona and Cristobal.

Applicants for licenses are invited to submit their applications prior to June 1, 1908, in conformity with the regulations adopted by the Isthmian Canal Commission April 27, 1907.

Herman A. Gudger,
Acting Collector of Revenues.

CANAL ZONE LANDS.

Bill Authorizing the President to Grant Leases of Them.

The following is the full text of a bill introduced in the House of Representatives by Mr. Mann, of Illinois, and reported from the Committee on Interstate and Foreign Commerce on April 17:

A Bill Relating to the Use, Control, and Ownership of Lands in the Canal Zone, Isthmus of Panama.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President is hereby authorized to grant leases of the public lands in the Canal Zone, Isthmus of Panama, for such period, not exceeding twenty-five years, and upon such terms and conditions as he may deem advisable. No lease, however, shall be granted for a tract of land in excess of fifty hectares, nor to any person who shall not have first established, by affidavit and by such other proof as may be required, that such person is the head of a family or over the age of twenty-one years, and that the application for a lease is made in good faith for the purposes of actual settlement and cultivation, and not for the benefit of any other person whatsoever, and that such person will faithfully comply with all the requirements of law as to settlement, residence, and cultivation. In granting such leases preference shall be accorded to actual occupants of lands in good faith.

SEC. 2. That no portion of the lands of the United States within the Canal Zone shall be leased hereunder unless it shall first be made to appear, by a statement or plat filed by the Isthmian Canal Commission with the collector of revenues for the Canal Zone, that it is not contemplated to use such lands in the work of canal construction or to set the same aside as a town site, and all leases shall be made subject to the provision that if at any time it shall become necessary, notwithstanding, for the United States to occupy or use any portion of the leased lands, it shall have the right to do so without further compensation to the lessee than for the reasonable value of the necessary improvements made upon said tracts by the lessee, the same to be determined by the courts of the Canal Zone.

SEC. 3. That all leases of lands hereunder shall reserve to the United States all mineral, oil, and gas rights in the lands leased.

SEC. 4. That for the purpose of adjusting claims for lands occupied or necessary to be occupied by the canal and the Panama railroad and appurtenant works the President is authorized to convey the title of the United States to such portions of the public lands in the Canal Zone as by him may be deemed advisable.

SEC. 5. That the President may, in his discretion, require a land survey to be made of the Canal Zone.

SEC. 6. That the powers conferred upon the President under this Act may be exercised by him through the Isthmian Canal Commission or in such other manner as he may designate.

Approved by Secretary Taft.

WAR DEPARTMENT,
Washington, March 7, 1908.

Sir: I am in receipt of your communication of March 6, inclosing a copy of H. R. 18694, relative to the use, control, and ownership of land in the Canal Zone, and requesting my opinion as to the merits of the bill and the propriety of its passage.

The land situation in the Canal Zone at the present time is very unsatisfactory. A large but undetermined portion of the land is owned by the Government, first, under the terms of the treaty with Panama, which conveyed to it the public lands, or tierras baldias, located within the Canal Zone; second, as successor to the French Interoceanic Canal Company, which had acquired a large portion of these lands by private title; third, as sole stockholder of the Panama Railroad Company, which, under the terms of cession from the Republic of Colombia, was granted alternate sections of land across the Isthmus and along its right of way. While the lands owned and controlled by the Government under one or the other of these titles of proprietorship constitute an admittedly greater portion of the entire lands in the Canal Zone, there are large bodies of land, lying especially within the Chagres Valley, to which for many years individual title has been asserted. The investigations made by the legal department of the Isthmian Canal Commission indicate that, with comparatively few exceptions, these titles are not founded upon any grant from the sovereign, and that therefore, even under the Spanish law, they are probably invalid as against the Government.

In this situation, a development of the agricultural resources of the Canal Zone has been prevented, for two reasons: First, because there has been no power on the part of the Government to grant leases for a longer period than five years, and even this power has only been exercised by a liberal construction of the act o June 28, 1902, authorizing the Secretary of War to lease public property under his control which may not be required for public use; and, second, because no private land claimant within the Zone, owing to his uncertain title, can grant a lease of lands that his lessee can recognize as sufficiently secure to justify the making of substantial improvements. These considerations have more weight on the Isthmus than they would have elsewhere, because the lands there at the present time are all in a practically wild state, and leases on the Isthmus are universally contracted with the expectation that the lessee will make substantial improvements by way of clearing away the jungles and forests, erecting fences, and building habitations. Upon an insecure title or under a short-term lease lessees naturally hesitate to assume so great a risk.

The proposed bill will serve a twofold purpose. With respect to its unquestioned real property it will enable the Government to make leases for a term sufficiently long to justify the lessees in making improvements of the substantial character above referred to; and it will at the same time enable the Government to securely settle the title to and open up to development a large portion of the country where at the present time the clouded character of the private titles paralyzes agricultural progress.

The latter function, of course, would only be discharged in connection with the adjustment of right-of-way damages, particularly in the Chagres Valley, and in the interests of substantial equity. There are many landowners who would be willing to surrender to the United States without further compensation such portions of their lands as will be overflowed by the waters of Lake Gatun or taken up by the auxiliary works of canal construction if the Government were in a situation to confirm to them a valid title to all or a part of their remaining estates or, in certain cases, to add to their estates from the adjacent public domain a part equal in extent or value to that taken away.

* * * * * * * * *

In my judgment, practically nothing is risked by the proposed legislation, while upon the other hand an act of this character would doubtless be of real benefit to the Commission in dealing with the land situation on the Isthmus. Mr. Rogers, the general counsel for the Commission, will be glad to appear before the committee or to furnish it with any additional data that it may desire.

Very respectfully,
WM. H. TAFT,
Secretary of War.

Mr. J. E. HILL,
Clerk Committee on Interstate
and Foreign Commerce,
House of Representatives,
Washington, D. C.

Pounds for Stray Animals.

Under authority of the order of the President of March 13, 1907, the following ordinance was enacted by the Isthmian Canal Commission on April 27, to be in force in the Canal Zone on and after the date of its approval by the Secretary of War:

1. It shall be unlawful for the owner or custodian of any horse, colt, mule, ass, bull, steer, cow, calf, hog, goat, or sheep, to permit any such animal to be at large within or in the neighborhood of any labor camp, village or other settlement in the Canal Zone, or on any watershed from which any public water supply is obtained; or to be staked or tethered in such place or in such manner as to be or create a nuisance within or in the neighborhood of any labor camp, village or other settlement or in any such watershed.

2. There shall be provided by the Chief of Police of the Canal Zone, convenient to each police station in the Zone, a public pound, in which should be impounded any animal found at large or tethered contrary to the provisions of the preceding section; provided that at each place where the Isthmian Canal Commission maintains a corral, such corral shall be used as a public pound.

3. Any animal found at large or tethered contrary to the provisions of the first section hereof shall be taken up and impounded by the police; provided that any such animal may be taken up by any private indvidual and delivered to the police for impounding. It shall be unlawful for any person to deliver to the police for impounding any animal other than an animal found at large or tethered contrary to the provisions of the first section hereof.

4. Notice of the impounding of any animal shall be posted by the police in two conspicuous places in the police district in which such animal is impounded for ten days, including the day upon which the animal is impounded. Such notice shall contain a description of the animal and shall state where it is impounded and to whom application should be made for its release. It shall also state that if previous appli, cation for the release of the animal is not made, it will be sold before the police station on the tenth day from and including the day on which it is impounded, at an hour to be stated in the notice.

It shall be unlawful for any person other than the owner or custodian, or agent of the owner or custodian, to secure the release of any impounded animal.

5. If application for the release of any impounded animal is not made within eight days from and including the date of its impounding, the police shall make application to the District Judge of the district for authority for its sale. If it shall appear to the judge that the provisions of this ordinance have been complied with, and that the animal has not been claimed by the owner or custodian, he shall enter an order authorizing its sale at public cry before the police station of the police district in which it is impounded at the time stated in the notice of impounding posted by the police. The police shall thereupon sell the animal, at the hour and place stated, to the highest bidder, for cash.

6. For each horse, colt, mule, ass, bull or cow impounded, there shall be collected one dollar, as a pound feel and fifty cents per day as a maintenance charge; and for each calf, hog, goat or sheep, fifty cents as a pound fee, and twenty-five cents per day as a maintenance charge.

Before the release of any animal to the owner or custodian, the proper fees and charges shall be collected from him. Upon the sale of any animal under an order of court, the court costs shall be deducted from the amount for which the animal is sold and paid over to the District Judge. All amounts collected by the police from the owner or custodian of any impounded animal or from its sale, after paying the costs of court, shall be remitted to the Treasurer of the Canal Zone as Zone revenues. There shall be returned to the owner or custodian of any animal sold under the provisions of this ordinance, upon application therefor made, at any time within one year from the date of such sale, the amount for which the animal was sold, less the pound fees and charges and costs of court.

7. If any impounded animal is suffering from any infectious or contagious disease, or from any disease or injury causing great pain, or is without value, or if no bid is received for any impounded animal offered for sale, the police shall immediately make application to the District Judge for authority to destroy it, and the judge shall, if he is satisfied of the facts as stated, enter an order authorizing its destruction.

8. The cost of constructing pounds and feeding impounded animals shall be paid from Canal Zone funds.

9. Any person violating any provision of this ordinance shall be guilty of a misdemeanor, and on conviction thereof shall be fined not more than twenty-five dollars, or imprisoned not longer than thirty days, or both fined and imprisoned, in the discretion of the court.

10. This ordinance supersedes and repeals the provision of any ordinance, regulation or law in force in the Canal Zone prohibiting persons from permitting animals to run at large, or providing for imqonding such animals, and the provisions of any other ordinance, regulation or law in force in the Canal Zone in conflict with it.

RECORD OF EXCAVATION SINCE AMERICAN OCCUPATION.

MONTHLY TOTALS BY CUBIC YARDS, PLACE MEASUREMENT.

BY DREDGES.

COLON.

Mos.	1905*	1906*	1907		1908	
	Outside of Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Can'l Prism
Jan		90,700		111,100	444,403	46,298
Feb		105,500		110,002	401,887	25,835
Mar		126,650		84,145	515,223	31,663
April		87,200		69,889	496,366	
May	60,700	64,875		133,847		
June		73,500	17,000	107,118		
July	58,050	69,000	104,322	5,600		
Aug	53,183	54,000	189,170	5,127		
Sep	48,837	123,540	403,842			
Oct.	48,800	111,020	409,632	5,488		
Nov	38,000	63,260	417,297	5,500		
Dec	92,250	58,400	428,053	14,782		
Totals	399,820	1,027,645	1,969,316	652,598	1,857,879	103,796

Total to May 1, 1908—6,011,054 cubic yards.

* No work done inside of Canal Prism.

LA BOCA.

Mos.	1905*	1906*	1907		1908	
	Outside of Canal Prism	Outside Canal Prism	From Canal Prism	Outside of Canal Prism	From Canal Prism	Outside Can'l Prism
Jan		95,940		94,710	460,250	
Feb		95,940		93,480	663,519	
Mar		116,820		92,319	783281	
Apr		110,700		104,855	676,539	
May		112,340		122,157		
June	50,676	62,697	64,352	69,223		
July	41,533	98,400	108,338			
Aug	54,530	111,930	168,284			
Sep	114,308	105,780	144,625	9,350		
Oct	81,836	97,170	357,122			
Nov	71,176	92,988	365,423			
Dec	71,094	90,528	349,551			
Totals	485,153	1,191,233	1,557,695	586,094	2,583,589	

Total to May 1, 1908—6.403,764 cubic yards.

* No work done inside of Canal Prism.

Grand total by dredges to May 1, 1908—12,453,243 cubic yards, including 38,425 cubic yards at Gatun dam site in 1907.

BY STEAM SHOVELS.

GATUN.

Locks, Dams and Spillways.

Mos.	1906*	1907		1908	
	From Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan		47,539		193,567	98,588
Feb		70,177		176,291	106,506
Mar		100,151		202,763	171,835
Apr		103,459		196,109	177,347
May		70,528			
June		71,181	3,832		
July		59,537	14,628		
Aug		78,357	26,866		
Sep		87,423	36,315		
Oct	3,055	136,777	40,236		
Nov	11,517	121,635	40,987		
Dec	12,056	160,795	69,756		
Totals	26,628	1,107,559	232,620	768,730	554,276

Total to May 1, 1908—2,689,813 cubic yards.

* No work done outside of Canal Prism.

PACIFIC DIVISION.

Locks, Dams and Spillways.

Mos.	1908		1909	
	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism
Jan		7,203		
Feb	385	38,661		
Mar	5,231	67,963		
Apr	6,682	92,261		
May				
June				
July				
Aug				
Sep				
Oct				
Nov				
Dec				
Totals	12,298	206,088		

Total to May 1, 1908—218,386 cubic yards.

CULEBRA DIVISION.

Mos.	1904	1905	1906	1907	1908
Jan		70,650	120,990	566,750	1,227,022
Feb		75,200	168,410	639,112	1,248,265
Mar		132,840	239,178	815,270	1,290,885
Apr		126,749	213,177	879,527	1,242,573
May	27,556	75,935	196,209	690,365	
June	32,551	76,905	212,623	624,586	
July	31,599	78,570	159,789	770,570	
Aug.	35,056	49,210	244,823	786,866	
Sep	25,220	44,085	291,452	753,468	
Oct	19,695	52,940	327,009	834,499	
Nov	28,860	60,540	221,642	790,632	
Dec	42,935	70,630	307,689	1,025,485	
Totals	243,472	914,254	2,702,991	9,177,130	5,008,745

Total to May 1, 1908—18,046.592 cubic yards.

CHAGRES DIVISION.

Mos.	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan			169,447	
Feb			200,145	
Mar			324,233	
Apr			329,483	
May				
June				
July				
Aug	2,900			
Sept	21,546			
Oct	25,627			
Nov	44,044			
Dec.	98,652			
Totals	192,769		1,023,308	

Total to May 1, 1908—1,216,077 cubic yards.

COLON DIVISION.

Mos.	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan			62,835	
Feb			65,632	
Mar			81,850	
Apr			67,436	
May				
June				
July	731			
Aug	15,257			
Sep	28,837			
Oct	41,078			
Nov	40,003			
Dec	46,945			
Totals	172,851		277,753	

Total to May 1, 1908—450,604 cubic yards.

Grand total by steam shovels May 1, 1908—22,723,365 cu. yds., including 78,233 cu. yds. excavated at La Boca Locks and Dams in 1907, and 23,360 cu. yds. from Cardenas Hills in March and April, 1908.

Grand total by steam shovel and dredges to May 1, 1908—35,176,608 cubic yards.

FRENCH AND AMERICAN RECORDS.

Highest elevation on new center line of Canal before excavation began by the French:	FEET
At Culebra..............312 | At Bas Obispo............	233
Greatest depth of excavation by the French:	
On I.C.C. Canal axis: at Culebra, 161; at Bas Obispo	148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-feet level Canal:	
At Culebra—at same point as before....................	111

	FEET
At barrier on Contractor's Hill......................about	140
At Bas Obispo..	45
Amount excavated under American control:	
In Culebra Division (Canal prism) to May1, 1908	18,046,592
Total excavation at all points under American control to May1, 1908................	35,176,608
	CUBIC YARDS
Total excavation by the French at all points and including diversion channel.................. about	81,548,000

SOCIAL LIFE OF THE ZONE.

Review of the Work of the Cristobal Woman's Club as Given at the Annual Meeting.

The annual meeting of the Cristobal Woman's Club, with the election of officers, was held on April 25. The president made her annual address and reports were read by the officers of the club and the chairman of departments. The club was organized October 9, 1907, by Miss Helen Varick Boswell and was placed almost immediately on a good working basis. During the first year the rules of organization provided that the government of the club should be in the hands of the following officers: Mrs. Lorin C. Collins, Mrs. E. Lewis Baker, Mrs. Charles Guckel, and Mrs. Walter G. Tubby. The regular board of managers consists of the officers of the club and three managers from each of the four departments.

The independent work of the departments adds greatly to the success of the organization. The department of art and literature, Mrs. E. Lewis Baker, chairman, has offered attractive programs varying from study of the history of Japan, its people, religion, customs, art and government, to a little comedy produced by the members of the club; a concert and several musical afternoons. The department will take up the study of Shakespeare during the coming year and the study of music will also be arranged as an alternate course. Papers have been read before the club by Mr. David C. O'Connor, Superinendent of Public Schools, Mrs. Mabel Loomis Todd, Lecturer; Mrs. H. G. Squiers, Mrs. Tracy Robinson, Dr. C. C. Pierce and others.

The department of education although organized last, has made amends for its short existence by the good work accomplished. Mrs. I. P. Eppelsheimer, the chairman, has placed the department in touch with the public school work, thus securing cordial co-operation between teachers and parents. An interest in physical culture has been awakened and in conjunction with this department, a fund has been raised for the purchase of a library for the school children.

The philanthropy department, Mrs. Thomas E. Brown, jr., chairman, has brought help and relief in many cases. Visits to the hospital have been made and donations of magazines accepted. Applicants for assistance have been aided in finding work, and in some cases food and clothing have been supplied. The department is now planning a home on the order of the settlement work in the States, where the children can be taught in a kindergarten and the older girls in training classes for sewing, and domestic science, including the care of the home.

The following officers were elected for the ensuing year: Mrs. Lorin C. Collins, president; Mrs. E. Lewis Baker, first vice-president; Mrs. Hiram J. Slifer, second vice-president; Mrs. F. H. Powell, recording secretary; Mrs. A. O. Herman, corresponding secretary, and Mrs. Walter G. Tubby, treasurer. The departments are officered as follows: Art and literature, chairman, Mrs. E. Lewis Baker; directors, Mrs. Frederick Mears, Mrs. Claude C. Pierce; Philanthropy, chairman, Mrs. Thomas E. Brown, jr.; directors, Mrs. Max Dyer, Mrs. M. C. erdell; Education, chairman, Mrs. I. P. Eppelsheimer; directors, Mrs. Charles Guckel, Mrs. J. A. Smith; Home, Mrs. John Burke; directors, Mrs E. H. Colip, Mrs. John H. Keefe. The new board of managers held a meeting on April 29 to arrange the work of the club for the next year.

The meeting of the Empire club on April 30 was in charge of the music department, Mrs. A. S. Zinn, chairman. A program was presented consisting of the music of the two composers, Beethoven, and the American, Ethelbert Nevins, with sketches of their lives given by Mrs. Brown and Miss Sophie Johnson. Selections from the works of the composers were given by Miss May Johnson and Miss Hillerman. There was the usual good attendance. Following the program, the meeting adjourned at the request of the president, to give the members opportunity to meet the guest of honor, Mrs. Abbie B. Hillerman, president of the Oklahoma branch of the Woman's Christian Temperance Union, and a prominent club woman. In a short address to the members of the Empire club, Mrs. Hillerman expressed her admiration of the work of the woman's clubs in the Zone, and gave an amusing description of social conditions existing upon a former visit to the Isthmus. Coffee and refreshments were served in the small reception room, and an animated discussion of club work was carried on.

The Pedro Miguel club is arranging to take up a systematic course of study during the next six months. Standard works will be read, reviewed and discussed at regular meetings. The social committee is arranging a series of novel entertainments to be given during the next few weeks. The president, Mrs. F. R. Roberts sailed for her vacation in the States on the *Panama*, May 1, and during her absence the chair will be occupied by Mrs. Harry Pease.

The president of the Paraiso club, Mrs. E S. Waid has returned from her vacation and was in the chair at the business meeting held on April 30. Mrs. Kinnell was elected secretary in the place of Mrs. Ellenwood. A card party in aid of the club is in prospect.

The Gorgona Woman's Club held its regular business meeting on April 30, when the committees for the term were appointed. The club has suspended business meetings until the last Thursday in August. An entertainment will be given on May 14, as a close to the year's work. Committees appointed were as follows:

Visiting, Mrs. Frank Morrison, Mrs. Swain, Mrs. Everist; sick, Mrs. McConaughey, Mrs. Varen Kamp, Mrs. West; home department, Mrs. La Rose, Mrs. Orr, Mrs. Hinkle; literary department, Mrs. S. D. Hayes, Mrs. Aubrey, Mrs. Beetham, Mrs. Toberer; art department, Mrs. Bromley, Mrs. Hinkle, Mrs. Hayes.

The Las Cascadas club at its business meeting on April 30, took under consideration a series of amendments to the by-laws presented by the board of directors. A dance was given by the entertainment committee on April 25. Music was furnished by the new Las Cascadas orchestra. Refreshments were served and dancing was enjoyed by a large number of club members and their friends.

A meeting has been called of the newly elected officers of the Canal Zone Federation of Women's Clubs for the afternoon of May 12, by the president, Mrs. Lorin C. Collins. The meeting will take place at the Commission club house at Cristobal at two o'clock.

The congregation of the Church of the Ascension, Bas Obispo, thank Mrs. McAlister very much for her Easter present of altar linen, and also for her kindness in the making up of the new church hangings; and Mrs. McMorrow for assisting.

PERSONAL.

Passed Assistant Surgeon H. O. Shiffert and Mrs. Shiffert, of Camp Elliott, sailed on the *Panama*, May 1. Dr. Shiffert has been ordered to the States for duty. Assistant Surgeon M. A. Stuart has relieved him at Camp Elliott, and is now the medical officer at that post.

Mr. J G. Ennis, Traveling Auditor of the Wells-Fargo Express Company, has recently been investigating express conditions on the Isthmus with a view to establishing offices here, if proper arrangements can be made.

Mr. and Mrs. Sydney A. Higgins and Mr. David A. Laing of the Sanitary Department at Ancon, sailed on the *Allianca* May 6, on an eight weeks' leave of absence, which they expect to spend in England and Ireland.

The Rev. John W. Calm has arrived on the Isthmus to assist Archdeacon Bryan in his work. Mr. Calm comes from Nicaragua, where he was rector of Greytown. He will have charge, under Archdeacon Bryan, of Trinity Church, Culebra; St, Mary's, Empire, and the mission at Gorgona.

The Bishop of Cuba has postponed his visit to the Isthmus until May 28, word having been received by cable to that effect. Bishop Knight will make the following visitations: May 29, at Gorgona, 3 p. m.; May 30, Bas Obispo, 3 p. m.; May 31, Culebra Mission Church, 3 p. m., and St. Paul's, Panama, 7:30 p m.; June 1, Las Cascadas. 11 a. m , and Christ Church, Colon, at 8 p. m, Confirmation will be held at these services. The Bishop will preach at the Protestant Chapel, Ancon Hospital, on Sunday, May 31, at the ten o'clock service.

Edward D. Fitzpatrick, Postmaster at Ancon, sailed on the *Harry T. Inge* on May 5, for the States where he will go into business on the expiration of his leave of absence, as he does not expect to return to the Isthmus.

Among the passengers that sailed for New York on the *Panama*, May 1, on their annual leave of absence, were: Dr. F. S. Darling, Chief of Laboratory, Ancon Hospital; Dr. W. Brem and family, Colon Hospital; Dr A. F. Reeves, Santo Tomas Hospital; Dr. S. S. Warren, Colon Hospital; Caspar L. Dreier, United States Deputy Consul General to Panama; Mr. and Mrs. L. K. Rourke of Empire; R. W. Hebard, Resident Engineer at Gorgona; Charles E. Jennings, Director of the I. C. C. Band; Mrs. G. D. Brooke and family, and Mrs. F. H. Sampson of Culebra; Mrs. N. G. Burton of Camp Elliott; Mrs. A. Z. Conard, J. H. Macfarlane and two children; Mr. and Mrs. W. G. Shea, Mr. and Mrs. Max Dyer of Cristobal, and Mr. J. H. Maher, General Claim Agent of the Panama Railroad Steamship Company.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

GORGONA.

The standing of the local bowling league at the finish of the tournament was as follows:

Teams	*Games*	*Won*	*Lost*	*Average*	*Pinfall*	*Team aver'g*
Machinists......	18	12	6	666	8,014	148 4
Molders...........	18	12	6	666	7,836	145 1
L Q. and S......	18	12	6	666	7,787	144.2
Miscellaneous..	18	8	10	444	7.672	142
Carpenters......	18	11	7	616	7,653	139 8
Plumbers...	18	8	10	444	7,403	137
Jadwin's Office	16	8	8	500	6,710	139.7
Boilermakers...	18	7	11	388	6,694	123.9
Transportati'n	16	5	11	313	6,657	138.5
Clerks.............	16	3	13	187	6,384	133

The tie for first place in number of games won was rolled off on Friday night, and won by the L. Q. and S. team with a score of 1390 pins against the Molders' 1297.

H. MacConaughey won the gold medal for the high individual average with a score of 162 3 for the 18 games; C. Bullard was second with 155.9.

MacConaughey was first in the two-game high average with a score of 192; Hayes was second with 186

Bullard was first in the single-game high score with a mark of 247; Mac Con'y was second with 231.

High pinfall for two games was made by the Machinists, with a score of 1,019.

High pinfall for one game was made by the Boilermakers and Jadwinites with a score of 540.

High bowling scores for the past week are: Bullard, 247; Collins, 222; D. J. Kenney, 207: R. Varen Kamp, 190.

The track at the ball park was laid out early last week, and will be ready for use by the middle of this week. It is to be 330 yards in circumference, 15 feet wide, and will have a straight-a-way of 100 yards on each side. Pits for the field events are to be laid off directly in front of the grand stand, so that a good view of all the events can be obtained.

CULEBRA.

The Culebra bowling record of 264 pins, held by E. J. Vogel, was broken on Friday evening, May 1, by R. H. Oliver, with ten strikes, a split and two spares—a score of 268. This record was made in the regular weekly handicap. Four other scores of over 225 were rolled in the same match The first-team Inter-Association bowling match will begin this month

The track meet, to be held at Gorgona on Decoration Day, May 30, is arousing much enthusiasm, and a number of athletes are in training At the recent meeting of the field and track men, G. S. Hertz was elected captain; C. R. Herrington, manager, and C. T. Roper, secretary. Arrangements have been made for a suitable cinder track and jumping pits, to be located on the dump opposite the station.

All inter-departmental basket ball series will be started Saturday night. Teams from the Departments of M. P. & M, L. Q. & S., Building Construction, and Chief Engineer's office will play.

Judge Thos. E. Brown, Jr., of Cristobal, gave an address to the men and women of Culebra on Sunday evening, April 26. Solos by Dr. Sumner Coolidge, and selections by the Instrumental Quartet were features of the occasion.

The boys of the Culebra Y. M. C. A had an all day outing at Taboga Island with Mr. Goodman last Saturday—a good swim, luncheon and a tramp over the grounds were the events of the day.

The Junior Club will resume their Friday afternoon meetings on May 8. All boys are invited.

Colon Sojourners Lodge.

THE CANAL RECORD:

Sojourners Lodge No. 874, A. F. and A M., will meet at its hall in Colon on Saturday evening, May 9, at 7:30 p. m., in Ordinary Communication. Masons in good standing are fraternally invited to be present.

JOHN LAGERQUIST,
Secretary,

Colon, May 2. 1908.

PERFORMANCE OF STEAM SHOVELS

Monthly Records in the Seven Divisions.

The subjoined tables show the monthly records of steam shovel work in the seven Divisions of Canal Excavation since American occupation. It will be noticed that there has been a large increase in the average output per shovel during the period.

CULEBRA.

Period.	Average number of steam shovels at work.	Number of working days in month.	Output per shovel CUBIC YARDS		Rainfall—Inches.		Maximum temperature in sun at Empire (degrees Fahrenheit).
			Per day.	Per month.	Empire.	Culebra.	
1906—							
January.....	12.83	26	363	9,430	1.28	1.19	.....
February	12.48	23	587	13,494	0.57	0.64	......
March..............................	12.37	27	716	19,335	0.45	1.34	......
April...........	12.33	24	720	17,289	11.42	8.43	......
May....................	12.41	27	581	15,684	7.54	7.25	......
June...........	14.81	26	539	14,026	6.92	8.94	123
July......	16.64	25	378	9,441	14.61	20.26	127
August............	16.93	27	536	14,461	11.84	12.97	132
September.....	21.33	24	568	13,664	7.41	6.22	130
October...........................	22.67	27	532	14,373	3.97	8.46	128
November...........	20.46	24	459	10,833	21.05	19.19	120
December..................	22.68	25	491	12,267	8.15	9.09	108
1907—							
January............................	31.04	26	702	18,248	0.08	0.00	104
February	39.87	23	674	15,966	0.13	0.49	108
March..........	43.88	25	741	18,530	0.16	0.08	105
April......	44.12	26	765	19,884	0.09	0.04	110
May..........	31.70	26	833	21,674	6.22	7.45	118
June...........	38.28	25	651	16,266	13.53	14.74	118
July..................................	43.38	26	680	17,670	9.85	9.42	118
August.....................	39.70	27	729	19,680	11.28	11.81	120
September.....	38.50	24	811	19,468	10.86	11.38	123
October..........	37.63	27	813	21,963	15.44	15.27	123
November.........................	41.88	24	784	18,818	10.40	6.91	123
December	42.72	25	965	24,113	1.47	2.30	124
1908—							
January.....	43.42	26	1,084	28,177	0.75	0.91	125
February..........................	43.67	24	1,186	28,475	0.00	0.01	124
March........................	42.19	26	1,171	30,451	0.41	0.13	125

GATUN LOCKS.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
Aug............	3.70	27	784	21,176	16.37
Sept...	4.12	24	884	21,219	8.03
Oct	5.00	27	1,013	27,355	19.27
Nov....	5 00	24	1,014	24,327	14.27
Dec....	5 00	25	1,286	32,159	5 53
1908—					
Jan......	5.72	26	1,302	33,840	3.18
Feb.............	6.01	24	1,222	29,333	1.29
Mar............	7.00	26	1,206	31.366	2 81

GATUN SPILLWAY.

1907—					
July	1.33	26	423	10,998	11.12
Aug...	2 00	27	498	13,433	16.37
Sept............	2 00	24	757	18,158	8.03
Oct.....	2.00	27	745	20,118	19.27
Nov....	2.00	24	854	20,494	14,27
Dec.....	2 00	25	1,395	34,878	5.53
1908—					
Jan....	3.00	26	1,264	32,863	3.18
Feb.............	3.75	24	1,183	28,402	1 29
Mar...........	4.54	26	1,311	34,149	2.81

MIRAFLORES LOCKS.

1908—					
Mar..........	3.5	26	786	19,418	0 00

CHAGRES.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
Aug..................	0.15	27	716	19,333	12 20
Sept...	0.92	24	976	23,420	14.71
Oct.....	2.22	27	428	11,544	13.62
Nov	3.00	24	612	14,681	9.85
Dec......	6.12	25	630	15,756	2.26
1908—					
Jan	8.11	26	797	20.720	0.20
Feb......................	10.33	24	798	19,144	0.11
Mar......................	11.47	26	1,082	28,094	0.41

COLON.

1907—					
July....................	1	13	56	731	11.12
Aug..	2	27	283	7,629	16.37
Sept.....	2	24	601	14,419	8,03
Oct.....	2	27	761	20,539	19.27
Nov....	2	24	833	20,002	14.27
Dec......	2	25	939	23,473	5.53
1908—					
Jan..	2	26	1,208	31,418	3.18
Feb......................	2	24	1,368	32,816	1.29
Mar....................	2	26	1,574	40,925	2.81

LA BOCA DIVISION.

1908—					
Mar....................	1	26	476	12,360	0.00

The grand total of all Divisions for the month of March, 1908, is:

Average number of shovels at work, 71.7.

Average output per shovel per day, 1,153 cubic yards.

Average output per shovel per month, 29,987 cubic yards.

The working day for steam shovels is eight hours.

LOST—A lady's fifteen jeweled, hunting case watch with initials M. W. engraved on it, and with cloisonné fob attached, near Central Park, Panama. Finder please return to Mrs. M. White, Pedro Miguel, and receive reward.

Blas Martinez, who was found guilty of murder in the court of the First Judicial Circuit on April 25, 1908, was sentenced by Judge Duran on May 2, to life imprisonment in the Canal Zone Penitentiary.

COMMISSARY DEPARTMENT.

NOTICE.

On and after Sunday, April 5, the Commissaries will not be open for business on Sundays or Legal Holidays. Purchases should be made on Saturday or the day preceding a holiday.

JOHN BURKE,
Manager.

COMMISSARY PRICES

For week ending May 2 :		*Price*
FRESH MEATS.		CTS
Beef—Sirloin roast	per lb	28
Rump roast	do	28
Porterhouse	do	28
Rib-roast, short-cut, (not under 3½ pounds	do	20
Rib-roast, second cut	do	17
Chuck-roast	do	13
Soup	do	7
Stew	do	12
Corned	do	10, 12 14
Suet	do	4
Steaks—Sirloin	do	28
Porterhouse	do	28
Rump	do	28
Round	do	20
Veal—Cutlets	do	24
Short-cut chops	do	24
Loin	do	23
Entire forequarters	do	11
For stewing	do	11
Mutton—Entire forequarters	do	9
Short-cut chops	do	20
Leg	do	18
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	30
Legs	do	28
Pork—Cuts	do	20
MISCELLANEOUS		
Livers—Beef	per lb...	10½
Livers—Calf	each...	60
Sausage—Pork	per lb...	16
Bologna	do	15
Frankfurter	do	15
Sweet bread—Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues(salted)	per lb...	24
Pigs' tongues, pickled and cooked.	do	11
Ox tongues	each...	90
POULTRY AND GAME.		
Chickens, dressed (milk-fed),	each...	†1.50
Chickens, large	do	1.70
Fowls	do	1.10
Ducks, fatted (fancy)	do	1.15
Suckling pigs	do	4.90
Turkeys	per lb...	26
Squabs	do	35
Broilers (chicken frys)	each...	90
Eggs, fresh	per doz...	28
Geese (10 lbs.)	each...	2.00
CURED MEATS AND LARD		
Bacon—Strips	per lb...	23
English breakfast, sliced..	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45
Whole, Ferris	do	19
Tropical	do	18
DAIRY PRODUCTS.		
Butter—prints, prime quality	per lb...	40
Ice cream	brick	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	33
Gouda	do	34
Edam	each...	1.05
Camembert	do	28
Pinxter's	tin...	22
McLaren's	jar...	15
Milk	quart...	**15
Milk, Briarcliff	quart..	**25
Buttermilk	bot...	**15
FRUITS AND VEGETABLES		
Pineapples	each...	15
Oranges	per doz...	12
Grape Fruit	each...	4
Lemons	per doz...	15
Apples	per lb...	7
Apples	do	4½
Beets	per lb...	6
Parsnips	per lb...	4
Dandelions	per lb..	10
Spinach	do	6
Celery	bunch...	25
White potatoes	per lb...	3
Cabbage	do	3
Wax beans	per lb...	18
String beans	do	25
Onions	per lb ..	4½
Tomatoes	per lb...	11
Radishes	do	15
Lettuce	do	18
Cucumbers	per lb...	12
Egg Plant	do	9
Sweet potatoes	per lb...	2½
New potatoes	do	4½
Turnips, Rutabagas	per lb...	4½
Yams	do	2½
Carrots	per lb...	*5

** Indicates reductions from last list*

† Indicates advance on last list.

*** Indicates 5 cents allowed for return of bottle.*

§ Sold only from Cold Storage and not from Commissaries

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	*New Price.* CTS.
Cotton gloves, white stock No. 35,591	pair	20	10
Cream foam, stock No. 37,682	ea..	20	10
Holders, curtain, stock No. 41,211	pair	10	5
Washstands, golden oak, stock No. 39,421	ea..	11.25	14.35
Milk, Peerless, Borden's.	tin..	8½	9
Sugar, granulated, 5s...	sack	20	22
Stewed kidneys, 1s	tin	13	15
Vinegar, malt, Crosse & Blackwell	bot	12	15
Biscuits, President wafers, Huntley & Palmer's	tin	33	38
Biscuits, tea rusks, Huntley & Palmer's...	tin	17	18
Biscuits, Fay, Huntley & Palmer's	do	22	24
Biscuits, Jumbo, Huntley and Palmer's	do	20	22
Biscuits, Jamaica, Huntley & Palmer's	do	42	46
Biscuits, Italian maccaroons, Huntley & Palmer's	do	40	45
Biscuits, mixed, Huntley & Palmer's	do	30	34
Biscuits, cafe noir, Huntley & Palmer's	do	28	30
Biscuits, coronation, Huntley & Palmer's...	do	25	28
Biscuits, Reading shortbread, Huntley & Palmer's	do	48	54
Biscuits, sponge rusks, Huntley & Palmer's...	do	28	30
Biscuits, jam fingers, Huntley & Palmer's...	do	28	31
Biscuits, Moss, Huntley & Palmer's			
Biscuits. boudoir, Huntley & Palmer's	do	22	24
Biscuits, petit beurre, Huntley & Palmer's...	do	21	23
Biscuits, cracknel, Huntley & Palmer's	do	23	25
Biscuits, Chatsworth, Huntley & Palmer's...	do	35	39
Biscuits, maizena wafers, Huntley & Palmer's	do	26	29
Biscuits, royal rusks, Huntley & Palmer's...	do	21	23
Biscuits, dessert wafers, Huntley & Palmer's	do	33	37
Biscuits, Titbits, Huntley & Palmer's	do	14	16
Biscuits, mixed cream, Huntley & Palmer's...	do	30	33
Biscuits, Ratafias, Huntley & Palmer's ..	do	42	47
Gelatine, Crosse & Blackwell, 2-oz	pkt	15	17
Jam, mixed fruit, Morton's, 7s	tin	48	56
Rosewater, Rimmel's ½-pt	bot	11	13
Rosewater, Rimmel's, pt...	do	17	20
Rosewater, Rimmel's qt	do	32	35
Tea, Ceylon	lb	31	35
Corned-beef hash, 1s	tin	14	16
Jellies, assorted, Curtice's, 10-oz	jar	18	23
Jellies, assorted, Curtice's, 18-oz	jar	31	34
Preserves, assorted, 20-oz	jar	43	46

April Rainfall for Three Years.

Station.	1906.	1907.	1908.	Av'ge since station estab'd.	No. of rainy days
Atlantic Slope					
Cristobal	4.23	1.06	1.27	4.23	18
Brazos Brook	....	1.07	1.33	1.20	18
Gatun	8.23	1.41	1.47	3.22	20
Bohio	5.45	.59	2.16	5.70	12
Tabernilla	....	....	2.37	....	6
San Pablo	....	....	3.39	....	8
Central Sec.					
Bas Obispo	....	.23	1.81	2.44	10
Gamboa	6.44	.44	2.65	3.54	9
Empire	11.62	.09	1.36	3.58	5
Camacho	....	.24	1.90	1.07	7
Culebra	8.33	.04	1.67	3.76	6
Rio Grande	4 14	.17	2.00	2 58	5
Pacific Slope					
Pedro Miguel	....	....	1.17	....	2
La Boca	7.16	*T	.76	4.06	5
Ancon	7.77	*T	1.37	2.30	4
Chagres Val.					
Alhajuela	4.23	.23	4.61	3.36	8

* Trace

CANAL EXPENDITURES.

The following table shows expenditures for Canal work, classified monthly, since July 1, 1907. The figures give only expenditures which have been located. In addition, there have been some disbursements, such as purchasing material, etc., which it will not be possible to locate to a specified account until their use has been finally determined:

Period.	Civil Administration.	Sanitation.	Construction and Engineering.	Municipal Improvements.	Plant Account.	Total.
Prior to Jul. 1	$1,427,903.01	$4,581,306.28	$13,397,448.16	$4,178,126.30	$18,943,621.25	$42,528,405 00
1907						
July..	51,183.84	149,270.94	962,477.19	146,131 93	580,562.68	1,889,626.58
Aug..	67,548.53	214,018.03	1,196,803.45	192,227.75	767,153.24	2,437,751.00
Sep...	63,239.62	253,108.77	1,194,304.85	107,840.85	1,068,300.58	2,686,794.67
Oct...	53,227.97	189,196.38	1,372,311.81	123,939.88	1,131,450.91	2,870,126.95
Nov..	54,529.02	166,381.82	1,217,120.31	115,625.44	1,105,590.16	2,659,246.75
Dec..	64,903.04	213,725.16	1,369,822.79	125,420.96	591,298 02	2,365,169.97
1908						
Jan...	66,802.92	221,866.30	1,468,021.44	156,956.22	1,584,821.98	3,498,468.86
Feb..	72,514.14	174,076.77	1,523,011.72	100,700.40	889.405.82	2,759,708.85
Mar.	63,653.60	165,311.77	1,460,229.91	110,232 15	1,307,321.82	3,106,749.25
Tot'l	$1,985,505.69	$6,328,262.22	$25,161,551.63	$5,357,201.88	$27,969,526.46	$66,802,047.88

WEATHER CONDITIONS, CANAL ZONE, APRIL, 1908.

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.					Mean relative humidity.	Precipitation.			Wind.			
		Mean.	Maximum.	Date.	Minimum.	Date.		Total.	Days with .01, or more.	Average since station established.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Date.
Cristobal.	29.87	80	87	25	74	27	81	1.27	18	4.23	10,456	n.	32	8
B. Obispo.	29.86	80	92	20	65	2	81	1.81	9	2.44	4,244	n.w.	20	5
Ancon	29.85	83	95	18	71	20	75	1.37	4	2.30	6,242	n.w.	26	6

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop,
Secretary, Ancon

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary.
M. B. DePutron, Assistant to the Chairman and Chief Engineer.
C. A. Mc Ilvaine, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
Capt. George M. Hoffman, U. S. A., Assistant Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm. Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk.
W. G. Comber, Division Engineer, La Boca
David V. Stratton, Chief Clerk.

Department of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
R. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun.
Sydney B. Williamson, Division Engineer, Corozal.
G. B. Strickler, Assistant Division Engineer, Corozal.
E. A. LeMay, Chief Clerk.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics), Ancon.
D. W. MacCormack, Chief Clerk.

Design of Lock Gates:
Lieut-Col. H. F. Hodges, U. S. A., in charge.
Henry Goldmark, David Molitor, Designing Engineers.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra
J. H. Barbour, Chief Clerk.

Division of Material and Supplies: W. G Tubby, Chief, Cristobal.
M. A. Follman, Private Secretary.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. D. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
Herman A. Gudger, Deputy Collector, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal
George R. Shanton, Chief of Police, Ancon
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
C. R. Sargent, Chief Clerk.
David C. O'Conner, Superintendent of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
Capt. Alexander Murray, U. S. A., Asst. to the Supt.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. Fleetwood Gruver, Quarantine Officer, Panama.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department

John Burke, Manager, Cristobal.
P. T. Murphy, Asst. Manager, Cristobal.

Purchasing Department.

Headquarters, Washington, D. C., U. S. A.
Lieut.-Col. H. F. Hodges, U. S. A., General Purchasing Officer.
C. E. Dole, Chief-Clerk.

F. C. Nordsick, Asst. Purchasing Agent, 24 State Street, New York City.
S. E. Redfern, Asst. Purchasing Agent, Custom House, New Orleans, La.
W. G. Tubby, Purchasing Agent on the Isthmus, Cristobal, Canal Zone.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON

Esperanza	P R.R.	Monday	May	4
Advance	P.R.R.	Saturday	May	9
Prinz Joachim	H -A	Saturday	May	9
Panama	P.R.R.	Thursday	May	14
Pr. Eitel Friedrich	H.-A	Friday	May	15
Trent	R.-M	Saturday	May	16
Allianca	P R.R.	Tuesday	May	19
Prinz Aug. Wilh'lm	H.-A	Saturday	May	23
Finance	P R.R.	Monday	May	25
Prinz Sigismund	H -A	Friday	May	29
Tagus	R -M	Saturday	May	30

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon

FROM COLON TO NEW YORK

Allianca	P. R.R.	Wednesday	May	6
Finance	P. R R.	Monday	May	11
Prinz Aug. Wilh'lm.	H.-A	Tuesday	May	12
Esperanza	P.R.R	Saturday	May	16
Tagus	R.-M	Tuesday	May	19
Advance	P. R.R.	Friday	May	22
Prinz Joachim	H.-A	Tuesday	May	26
Panama	P.R.R.	Wednesday	May	27
Allianca	P.R.R.	Monday	June	1
Magdalena	R -M	Tuesday	June	2
Finance	P.R.R.	Saturday	June	6

FROM NEW ORLEANS TO COLON

Ellis	U.F.C.	Saturday	May	2
Preston	U.F.C.	Saturday	May	9
Harry T. Inge	U F.C.	Saturday	May	16
Ellis	U.F.C.	Saturday	May	23

FROM COLON TO NEW ORLEANS

Harry T. Inge	U.F.C.	Tuesday	May	5
Ellis	U.F.C.	Tuesday	May	12
Preston	U.F.C.	Tuesday	May	19
Harry T. Inge	U.F.C.	Tuesday	May	26

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Atrato	R.-M	Tuesday	May	12
Trent	R.-M	Tuesday	May	26
Tagus	R.-M	Tuesday	June	9

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's Line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company despatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Antillian*, about May 16, and *Louisianian*, about May 25.

The following steamers have recently arrived at La Boca: April 25, *Manavi* from Buenaventura; April 28, *Acapulco* from San Francisco; April 29, *Victoria* from Southern ports. Departures were: April 24, *Mackanaw* for San Francisco; *Quito* for Buenaventura; April 27, *San Jose* for San Francisco; April 30, *Denderah* for Hamburg, Germany.

Isthmian Baseball League.

Scores, May 3, 1908:

At Ancon Park: M. P. & M., 6; Marines, 1.

At Empire Park: No game—rain.

At Gorgona Park: Gorgona, 9; Culebra, 0 (to Gorgona by forfeit, Culebra team failing to appear).

STANDING OF THE LEAGUE.

May 4, 1908:

	Played.	*Won*	*Lost.*	*Per cent.*
Ancon	17	15	2	882
M. P. & M	18	14	4	777
Empire	17	13	4	765
Culebra	18	8	10	444
Kangaroos	18	7	11	389
Gorgona	18	4	14	222
Marines	18	1	17	055

To be played May 10, 1908:

At Ancon Park: Marines vs. Culebra.

At Empire Park: Empire vs. M. P. & M.

At Gorgona Park: Gorgona vs. Kangaroos.

CANAL RECORD

Volume 1. ANCON, CANAL ZONE, WEDNESDAY, MAY 13, 1908. No. 37

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Strawberry Supplies.

Three hundred and twenty quarts of strawberries will arrive on the *Panama* May 20, and every five days thereafter until the close of the season a fresh supply will arrive. The berries will not be served at the messes, but will be delivered only to families on special order.

Work at La Boca.

Clapet No. 11 has been equipped with mast and boom at the La Boca shipyard and is being used in cleaning the harbor at that port of old wreckage. At present she is engaged in removing the fragments of a dredge sunk there in the days of the old French company. There is a tradition that the dredge never displaced a yard of earth. It was launched and towed to a point opposite the dock where the crew left it at the lunch hour, and where it turned turtle during their absence. Efforts were made to right it but without success and it remained there, a menace to navigation, until a short time ago when it was blown by dynamite into pieces small enough for the clapet to handle with her 25-ton crane. The pieces are useless and are being carried out to sea and dropped in deep water.

Dredge A-2 has been taken out of service for repairs. It was rebuilt for the Panama Railroad Company about five years ago and has been in constant service ever since with a record of only about forty days out of commission for repairs in that period. It will be entirely overhauled and it is expected will be ready for work again in about two months.

Three new steel barges, with a capacity of 400 cubic yards each, are being built at the shipways and will be in service in the course of a few weeks. Clapet No. 5 is on the ways being repaired and repainted. She will be equipped with a complete oil-burning outfit before returning to work.

Authority has been given for 800 feet of permanent wharf front to be built from the shipways up the Rio Grande. Work will begin at once.

Highest Daily Shovel Records.

The subjoined table gives the highest daily records of steam shovels in the four construction districts of the Culebra Division, Department of Excavation and Dredging, for the month of April, 1908. It will be noted that some of the shovels made high records for a working day of but eight hours:

Shovel No.	Date	Location	Amount of material remov'd (cubic yards)	Kind of material
216	April 9	Empire.........	2,780	rock and earth
124	April 6	Empire..........	1,608	rock
215	April 6	Bas Obispo...	2,904	earth
127	April 23	Bas Obispo...	2,076	rock and earth
202	April 9	Pedro Miguel	2,600	earth
123	April 22	Pedro Miguel	1,469	earth
222	April 8	Culebra.........	2,612	rock and earth
152	April 9	Culebra.........	1,704	rock and earth

Note.—Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dippers of a capacity of 5 cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

April Revenues.

The report of the Acting Chief of the Division of Posts, Customs and Revenues for the month of April shows the largest month's business ever done in the Canal Zone post-offices, both in the number of money orders sold and the amount of money handled. The number of orders issued was 14,669, an increase of 363 over the month of March, 1908, the highest previous record. The 14,669 orders were drawn for a total of $445,981.26, an increase of $15,544.10 over March. Of this total of $445,981.26, there was drawn in orders on the United States and elsewhere $320,750.36, and in orders payable in the Canal Zone, $125,230.90.

The largest number of orders, 2,507, was issued at Cristobal and amounted to $70,861.31; Empire was second with 1,944 orders, amounting to $63,436.59; Gorgona was fourth with 1,484 orders, but was third in amount with $51,840.09. Culebra was third in orders, 1,637, but fourth in amount, $49,838.79. Ancon was fifth with 1,344 orders, aggregating $33,576.08.

Postage sales for the month of April amounted to $6,299.13 and other collections for the month were as follows: Land and building rent, $1,578.86; miscellaneous bills, $1,456 05; deposits by insurance companies, $129.02; internal revenue (tax on distillation) $346.80. In the administrative districts of Ancon, Cristobal, Empire and Gorgona, the amount collected for licenses, taxes, etc., aggregated $7,343.12, and the fines and costs amounted to $2,803 05.

Articles Left on Trains.

So many articles left on the trains by passengers have been turned into the main office of the Panama railroad at Colon that a room has been set apart in the office of the superintendent for their safe keeping. A list of these articles will be published monthly in THE CANAL RECORD. Attention is called to this list in advance of its publication in order that persons who have left articles on trains may know where to apply for them.

Better Coffee at Lower Price.

It is estimated at the Commissary in Cristobal that the new coffee roasting plant recently installed there will pay for itself in less than two months, and that after the experimental stage is passed it will save the Government about three thousand dollars a month in its coffee bill for the Isthmus. About forty thousand pounds of coffee are used in the Canal Zone every month, thirty thousand pounds by the mess houses and ten thousand by families. That used by the mess houses is now being roasted by the Commissary. It is "Santos No. 4, exact" and costs delivered at the mess, 16 cents a pound, whereas it formerly cost from 22 to 24 cents a pound. Experiments are being made to blend this coffee with some more acid kind, such as Costa Rican or Venezuelan, for service to families. At present the higher grade coffee used in families in the Zone is roasted in New York and packed in hermetically sealed tins, making the cost out of proportion to that of coffee brought here green and roasted at the Commissary.

The new roasting and grinding plant, which cost $3,200, is of the most modern type and is all run by one man, an expert roaster and blender formerly with a large New York house. In computing the cost of the coffee the interest on the plant deterioration and the service charge for operating are factors.

April Material and Supplies.

The April report of the Chief of the Division of Material and Supplies shows that the total amount of material disbursed by the Division during the month was valued at $1,220,943.10, of which $1,215 115.77 was new and $5,827.33 French stock. Twenty ships arrived at Colon and Cristobal during the month with supplies of various kinds for the Commission, amounting to 28,502,080 pounds of freight, among which was 2,061,860 pounds of dynamite.

Among the supplies issued during the

NOTES OF PROGRESS.

(Continued)

month were 979,150 pounds of dynamite, 97,200 feet of triple-tape fuse, 32,400 caps and 30,850 electric exploders.

The new storehouse at Empire is practically completed and the stock of material is being transferred to it from the old French storehouse. The new building will greatly facilitate the handling of supplies at this point.

Rainy Season Mishaps.

Two small setbacks due to the rainy season occurred on the Chágres Division work last week. Wednesday evening a small slide of earth at Caimito overran the running board of one of the steam shovels, and it was not until Friday that the shovel was again in operation. At Santa Cruz, Tuesday night, one of the shovels was overcome by a flood in the Chagres river. The telegraph line in the hills up toward the source of the river got out of order, and the watchers could not inform the men on the work of the impending onrush of water. The shovel men were unprepared and in consequence two days were spent in putting the shovel into working order again.

A stretch of the south-bound track about 90 feet long sank three feet Wednesday afternoon at a point a mile south of Tiger Hill. The track is being raised at this place and the heavy rains combined with the jar from a train of loaded dump cars made the new bedding sheer out. The break was quickly repaired.

Improvements at Camp Elliott.

A new gymnasium and post exchange building is being erected at Camp Elliott. It will be 120 feet by 30 feet and will include a barber shop, pool tables, store room, steward's room and a toilet and lavatory. The gymnasium will have the largest clear floor space of any gymnasium on the Isthmus, and will be 69 by 30 feet. The post exchange will have a soda fountain in addition to the usual fixtures. It is expected that the building will be completed by June 1.

A new electric fire-alarm system has recently been installed and other improvements are being planned. The parade ground is to be enlarged and leveled; electric lights will be put in throughout the Camp, and a drying house for the use of the enlisted men will be built in the near future. All the main buildings in the Camp are connected by telephone, which is a part of the system across the Isthmus.

There are about forty buildings at Camp Elliott among which are the following: Headquarters office building, Quartermaster's office and store room, hospital with thirty beds, guard house, theatre, library, six married quarters for officers, one bachelor quarters for officers, two married quarters and one bachelor quarters for non-commissioned officers, two mess halls, with kitchen between, with a seating capacity of about 300, eighteen barracks for the enlisted men, wash house and a corral. The entire camp is furnished with distilled drinking water in addition to the regular water supply from the Camacho reservoir, with which all the buildings are connected. All the garbage from the Camp is consumed daily in a McCall incinerator.

The officers now stationed at the Camp are: Major J. H. Russell, Commanding; Capt. N. G. Burton, Battalion Quartermaster; Assistant Surgeon M. A. Stuart, Lieut. C. B. Matthews, Adjutant; Captains John F. McGill and George Van Orden, and Lieutenants H. H. Kipp and G. M. Kincade. The non-commissioned staff consists of Sergeant Major Cox, Quartermaster Sergeants Kelley and Patchen, Gunnery Sergeant Brong, 1st Sergeant Johnson and Hospital Stewards Schwartz and Ransom.

The wireless station at Colon, at which there are several Navy electricians, is also under the charge of Major Russell.

Major Russell has received a cablegram stating that fifty marines sailed from New York on the *Advance*, on May 9, for Camp Elliott. This will bring the marine battalion at the post up to its normal complement and will fill vacancies that will soon occur by the expiration of terms of enlistment of a number of the men.

Secretary Taft's Visit.

Secretary Taft arrived at Cristobal on the morning of Wednesday, May 6, on the U. S. S. *Prairie*. He was met at the dock by the Chairman and members of the Isthmian Canal Commission and the General Manager of the Panama Railroad Company, and was taken on a special train to Culebra where he made his headquarters.

He came to the Isthmus for the purpose of conferring with the Isthmian Canal Commission on various matters connected with Canal administration, and with the Panama Government on several questions of international character pertaining to the relation of that Government with the United States and with the Republic of Colombia. At the conferences on the latter subjects, which were held in Panama, there were present, in addition to the officials of the Panama Government, the Panama Minister to the United States, Mr. Arango, the American Minister at Panama, the Hon. Herbert G. Squiers and William Nelson Cromwell, Legal Adviser of the Panama Government.

The Secretary sailed for the States on the *Prairie* on the afternoon of May 12.

Baggage in Passenger Coaches.

The General Manager of the Panama Railroad Company wishes to call the attention of patrons of the railroad to the fact that the rules of the Company permit only hand baggage to be carried into passenger coaches; that only thirty pounds of hand baggage is allowed to first-class passengers and fifteen pounds to second-class passengers, and that this rule will be enforced in the future.

Clearing Ground at Gatun.

Bids will be received at the office of W. G. Tubby, Purchasing Agent on the Isthmus, up to 2.30 p. m., May 16, 1908, at which time they will be opened in public, for the clearing of all grass, brush, stumps and trees from approximately twenty-four (24) acres of ground adjacent to the Isthmian Canal Commission hospital at Gatun, the exact location and extent of which will be pointed out by the local Sanitary Inspector. Work must be commenced by May 25, and completed by July 10, and must be performed in accordance with specifications to be obtained at the office of the Chief Sanitary Inspector, Ancon, or at the office of W. G. Tubby, Cristobal. The successful bidder must furnish bond, or cash deposit, in the sum of one hundred and fifty (150) dollars, U. S. Currency, as guarantee that the work will be properly performed and to reimburse the Commission for the loss of or damage to any tools loaned. Proposals should be enclosed in sealed envelopes marked, "Proposal for clearing ground at Gatun." The right is reserved to reject any and all bids.

EXECUTIVE ORDER.

Wilful Injury to Public Monuments.

Under authority vested in me by law, it is ordered:

Section 436 of act No. 14 of the Laws of the Canal Zone is hereby amended so as to read as follows:

Every person who wilfully injures, defaces, or removes any signal, monument, building, or appurtenance thereto, placed, erected or used by persons engaged in the United States Coast Survey, or Isthmian Canal Commission, or any public service company within the Canal Zone, knowing the same to be a boundary or survey monument, is guilty of a misdemeanor.

THEODORE ROOSEVELT,

THE WHITE HOUSE,
April 24, 1908.

April Police Report.

The April report of the Chief of Police of the Canal Zone shows an increase in the number of arrests for the month, 591 having been made in April as compared with 586 in March. The 591 arrests were for 52 different offences and 40 different nationalities were represented. They were divided among the different towns of the Zone as follows:

Ancon	30	Las Cascadas	25
Las Sabanas	7	Bas Obispo	15
La Boca	34	Gorgona	87
Corozal	5	San Pablo	9
Pedro Miguel	14	Tabernilla	49
Miraflores	12	Bohio	5
Paraiso	32	Gatun	31
Culebra	52	Cristobal	95
Empire	89		
Total			591

Miraflores, formerly an outpost of the Pedro Miguel police station, was made an independent station on April 1. The change was necessary because of the recent increase of population in that vicinity. There were 146 prisoners in the district jails on April 30, a decrease of one for the month. The Coroner held inquests on 8 cases of accidental deaths, 2 deaths being caused by drowning and 5 by railroad accidents.

The number of convicts at the Zone Penitentiary on April 30 was 95, an increase of 5 for the month. The value of work performed by the convicts on roads, etc., was $1,580.40. The total effective police force on April 30 was 151, and the pay roll for for March amounted to $17,330.64.

Burglaries in Bachelor Quarters.

About three o'clock Sunday morning a sneak thief visited the bachelor quarters at Ancon and stole over fifty dollars. It is suspected that this burglar is the one who has made profitable hauls at Culebra and Empire.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Instruction in Military Tactics.

THE CANAL RECORD:

I believe that fully 25 per cent. of the Americans working for the I. C. C. are either ex-regulars of the United States Army or ex-militia men. Would it not be a good idea to establish a School of Instruction in Military Tactics, for the above men, under the able direction of one or more members of the present Commission; giving the men the use, once a week or twice a month, of the Marine rifle range at Gatun. Additional ranges could be established, if necessary, at other points along the line at a slight expense. The United States has here at hand, and going to waste, the finest representative body of Americans the States can produce and it seems too bad that advantage is not being taken of same along the lines outlined above.

Suitable prizes in marksmanship consisting of bronze medals, etc., could be given to those making the highest scores or qualifying as sharpshooters, expert marksmen, etc. This would tend to create a keen, healthy rivalry between men of the different towns. There is an old saying that "The hope of the Nation rests on her children." Can we then consistently allow military patriotism to die out here when we know not the hour or minute when we may be needed?

Would like to hear the opinions of the boys in regard to the above.

GEO. B. HALLORAN,
Material and Supplies, Empire.
Ex-member of Company F, 2nd Mass. Volunteer Militia, Pittsfield, Mass.

Empire, May 5.

Knights of Pythias Lodge at Gatun.

THE CANAL RECORD:

At a meeting of twenty-five applicants for a charter for a K. of P. lodge at Gatun, held April 28, the following officers were elected and will be installed as soon as the charter is granted and the lodge instituted:

Chancellor commander, F. E. Shuck; vice chancellor, Harry V. Fleming; prelate, John F. Person; master of work, L. S. Garske; keeper of records and seal and master of finance, V. M. Claybourn; master of exchequer, Walter B. Smith; master at arms, M. E. Gillmore; inner guard, H. G. Henning; outer guard, Frank Anderson; past chancellors, T. H. Lockhart, E. E. Alexander, Ed. G. Bath; trustees, one year, W. D. Henry; two years, Willis R. Cole; three years, F. E. Shuck.

V. M. CLAYBOURN,
Secretary, pro. tem.

Gatun, C. Z., April 30.

Culebra Christian League.

THE CANAL RECORD:

In order that the regular activities of the church may be carried on in an efficient and business-like way, there has recently been formed at Culebra an undenominational organization known as the Culebra Christian League.

This organization has for its object and aim, "The fostering and cultivation of the Spiritual and Religious life of persons already members of various churches, and the providing, as far as practicable, a religious home for Christian workers; also the equally important problem of enlistment of persons in Christian service who are not now members of any church."

A constitution and by-laws have been adopted, and the officers and standing committees have been elected.

The officers, the chairmen of the standing committees, and five members elected by the organization, constitute an "Executive Council," with a total membership of 15, the duty of which is to "Devise ways and means for furthering the object of the organization."

The "Council" has held several meetings, and active, enthusiastic work has been begun by the League.

Over 60 names of charter members have been subscribed to the constitution, and it is expected that within a very short time this number will be doubled.

It is earnestly hoped that all those in the community, who are interested in Christian work, and who have not already done so, will hasten to identify themselves with this movement.

CECIL T. ROPER,
Secretary.

Masonic Club.

THE CANAL RECORD:

There will be a meeting of Master Masons at the Hotel Tivoli, Saturday evening, May 16, for the purpose of forming a Masonic club to be composed of members who are affiliated with the different Grand Lodges in the United States, Canada and Scotland.

BY ORDER OF THE COMMITTEE.

Ancon, May 12.

Gorgona Masonic Club.

THE CANAL RECORD:

The Gorgona Masonic club will hold its regular weekly meeting at the lodge room in Gorgona, on Sunday, May 17, at 1 p. m.

W. H. STEVENS,
Secretary.

Gorgona, May 10, 1908.

Eagle Club of Paraiso.

THE CANAL RECORD:

The members of the Fraternal Order of Eagles are requested to attend a meeting to be held at the Astor House in Colon on Sunday, May 17. By order of the secretary of the Eagle Club, of Paraiso.

E. W. FELIS,
Secretary.

Paraiso, May 11.

Notice to Knights of Pythias.

THE CANAL RECORD:

Lock City Lodge No. 5, K. of P., will be installed at Castle Hall of Panama Lodge No. 1, Cristobal, on Saturday evening, May 23.

P. F. MAHER,
Deputy Supreme Chancellor.

Empire, May 8.

Gugu Bahay.

THE CANAL RECORD:

All members of the Gugu Bahay and all those desiring to become charter members will please be present at the Metropole Hotel, Panama, on the afternoon of May 17. Location of club rooms to be put to vote and other matters of importance to the club to be discussed.

W. E. BRANDON,
Secretary pro. tem.

Culebra, May 7.

HIGHEST APRIL SHOVEL RECORDS.

The records of the highest steam shovels in each of the four construction districts of the Culebra Division, with the number of the shovel, for the month of April, 1908, consisting of 25 working days, are as follows:

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
BAS OBISPO DISTRICT.			
*216	5,461	12,743	18,204
217	24,327	4,293	28,620
227	9,026	16,722	25,788
EMPIRE DISTRICT.			
*216	10,595	24,721	35,316
219		41,828	41,828
225	11,570	26,998	38,568
CULEBRA DISTRICT.			
105	29,250		29,250
109	25,590	2,226	27,816
205		38,602	38,602
230		38,220	38,220
PEDRO MIGUEL DISTRICT.			
123	28,045		28,045
202	23,399	16,117	39,516
209	21,800	20,937	42,737
OBISPO DIVERSION.			
127	22,293		22,293

*Total for steam shovel No. 216, 53,520 cubic yards. This is the highest record made by a single shovel since the United States began operations on the canal.

The records of the highest steam shovels in the Chagres Division, with the number of the shovel, for the month of April, 1908, consisting of 25 working days, are as follows:

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
MATACHIN.			
108	33,687		33,687
SANTA CRUZ.			
156	27,208		27,208
SAN PABLO.			
254	39,687	10,294	49,981
CAIMITO.			
59	27,785	1,140	28,925

BEST DAILY RECORDS OF SHOVELS IN CHAGRES DIVISION.

April 15—No. 131	2,424 cu. yds.
April 16—No. 254	2,670 cu. yds.
April 21—No. 54	1,500 cu. yds.
April 2—No. 156	1,595 cu. yds.

The records of the two 70-ton shovels at Mindi for the month of April, 1908, are as follows:

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
103	17,366	23,282	40,648
133	3,786	23,002	26,788

BEST DAILY RECORDS AT MINDI.

Apr. 21, No. 103—1,780 cu. yds. of clay and rock
Apr. 2, No. 133—1,827 cu. yds. of clay and rock

Note—Shovels in the fifty class are 45-ton shovels with buckets of a capacity of 1¾ cubic yards. Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dipper capacity of 5 cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

SOCIAL LIFE OF THE ZONE.

Meetings and Club Events of the Past Week.

The work of the women's clubs during the past week has been of specially earnest character. The question of closing for the summer months was taken up at the business meetings and, owing to the difficulty and uncertainty of attendance during the wet season, several of the organizations have decided that the club work will be better for a short rest, and the opportunity given for the arrangement of work for the coming year. This decision shows that the leaders in the club movement feel that the clubs have become regular features of Zone life; that there is no danger that the short vacation will prove a hindrance to future effort, and that the clubs may be benefited by the change and freedom from meetings for a short time.

The interest shown by the women in the States in the Zone organizations is most encouraging and increases the efforts of the women here to further action and for better results. At the biennial convention of the General Federation in June, Miss Helen Varick Boswell will appear in a ten-minute talk on the Zone clubs. There seems to be but little doubt that the action on the admission of the Zone Federation to the General Federation of Women's clubs will be concluded immediately after the opening of the convention in Boston. Mrs. Thomas E. Brown, jr., of Cristobal, has been appointed chairman of the delegates from the Zone Federation.

The Ancon club held its business meeting May 6, in the Sun parlor of the Tivoli, the president, Mrs. J. M. Maguire, presiding. Action was taken upon the resignation of the recording secretary, Mrs. E. F. Quimby, and Mrs. Charles Jewett was elected to the office. The club has appropriated a certain sum of money to be devoted to the purchase of a library. Steps are also being taken to establish a standard library for Ancon through the Woman's club. The education department meets at the residence of the chairman, Mrs. William Ruggles, house 85, Ancon, on alternate Wednesdays. Books are taken up for discussion and readings are given. These meetings are open to club members as well as to members of the department. The next meeting of the Ancon club will take place May 20.

The Empire club voted at the meeting May 7 to take a vacation during the months of June, July and August. The annual meeting, with election of officers, will be held May 21. A committee was appointed for the revision of the constitution and by-laws. During the recess the club members will meet once during the month for social purposes and in order to keep in touch with the club work, and to arrange work for the coming year. By unanimous vote, Mrs. Abbie B. Hillerman, who will remain for some time at Empire, was elected to honorary membership.

The Culebra club met May 7, the president, Mrs. E. M. Pullen, in the chair. The meeting for May 21 is in charge of the entertainment committee and will be one of special interest and attraction. The program arranged is a lecture by Mr. H. F. Schultz, horticulturist, who will speak on the "Fruits of the Isthmus." An exhibition of native fruits, the best specimens obtainable, will be held in connection with the lecture and the refreshments will consist exclusively of native products. The entertainment will be open to the club members and a limited number of guests, invited by the club, and an admission fee of 25 cents will be charged the general public. The program promises to be one of considerable interest as the opportunity of seeing a collection of various fruits grown on the Isthmus is rare. Mrs. J. A. Bogart was elected treasurer in the place of Mrs. W. M. Belding, who has left for the States.

The social meeting of the Paraiso club, held May 7, was largely attended and was one of the most enjoyable of the year. The feature of the entertainment was a guessing contest in which prizes were won by Mrs. Kirk and Mrs. Ellenwood. Mrs. Proud gave some recitations and the members of the club furnished music. The club will meet May 21 for its regular business session.

The Las Cascasdas club held its regular business meeting on May 7, a full attendance of members being present. Action was taken on several matters relative to public and local improvement. The course of reading on the history of the Isthmus was begun, Mrs. Lingo being the member appointed for the afternoon. The reading course will be held regularly at the first and third meetings and will include the history to the present time. A discussion follows the reading, which will include descriptions of points and places of interest, historic or scenic, on the Isthmus.

The monthly conference of the clergy and catechists of the Episcopal church on the Isthmus was held at Ancon, May 9, Archdeacon Henry B. Bryan presided and preached the sermon. There were eleven present.

Culebra Union League.

The Union League of Culebra will give a social in the chapel on Tuesday evening, May 19. A special program has been prepared and refreshments will be served. All people of Culebra are cordially invited to attend.

Information in regard to Mrs. E. Coulson, who is supposed to be in the Canal Zone, is desired by her son R. A. Coulson, of Coquimbo, Chile. Anyone in possession of such information may communicate with Arnold Shanklin, American Consul-General, Panama.

Concert.

By the I. C. C. Band at Paraiso, C. Z., Sunday, May 17, at 2.30 p. m.

PROGRAM.

1	March	*With Sword and Lance*	Starke
2	Selection	*The Merry Widow*	Lehar
3	Waltz	*Impassioned Dream*	Rosas
4	Flower song	*Hearts and Flowers*	Tobani
5	Characteristic dance	*On Our Honeymoon*	Harris
6	Selection	*The Sho Gun*	Luders
7	Sextette	from *Lucia*	Donizetti
8	a	*Experience*	Caryll
	b	*Love's Last Word*	Cremieux
9	Overture	*Lustspiel*	Keler Bela
10		*Indian War Dance*	Bellstedt

OLIVER KIMBALL,
Director.

The next concert will be given at San Pablo, May 24.

PERSONAL.

Commissioner D. D. Gaillard and Mrs. Gaillard and Commissioner W. C. Gorgas accompanied by Mrs. Gorgas, Miss Gorgas and Miss Walker, will sail for New York on the *Esperanza*, May 16, for a visit of two months in the States.

Mrs. Wm. Gerig and family, of Gatun, were passengers on the *Finance* which arrived at Cristobal on May 5.

Among the passengers that sailed for New York on the *Allianca* May 6, on their annual leave of absence, were: C. A. McIlvaine and wife and W. H. Baxley of Culebra; Dr. G. H. Edwards of Colon hospital, and Dr. E. P. Beverly and family of Cristobal.

Dr. C. G. Andrews, District Physician at Ancon, and Dr. R. C. Conner, of Ancon hospital, returned to the Isthmus on the *Ellis* which arrived at Colon on May 7.

Mrs. R. F. Loy, widow of R. F. Loy, who was killed at Miraflores on April 8, wishes to express her thanks to her friends and brother Kangaroos on the Isthmus, for their sympathy and financial aid extended to her by them.

Among the passengers on the *Esperanza*, which arrived at Cristobal on May 10, were Miss Margaret Slifer, John Slifer and Miss Cone, of Colon, and Dr. James A. Hayne and family, of Culebra.

Mr. D. W. Bolich, Division Engineer of the Culebra Division, accompanied by Mrs. Bolich, sailed for the States on the *Finance*, May 11. It is understood that they will not return to the Isthmus.

Inquiry into Labor Conditions.

James Bronson Reynolds and Samuel B. Donnelly, of New York, and Henry Beach Needham, of Washington, arrived on the *Esperanza* Sunday, to investigate labor conditions on the Isthmus as the special representatives of President Roosevelt. Mr. Reynolds was one of the special commission that represented the President in the investigation of conditions in the Chicago packing houses in 1906. Mr. Donnelly is a prominent leader of organized labor and secretary of the joint Board of Arbitration of New York Building Trades. The program mapped out for the investigation covers a period of about three weeks, and includes a general survey of the work preparatory to taking up the special inquiry.

Sailors for the Naval Fleet.

In addition to her regular complement the U. S. S. *Prairie*, upon which Secretary Taft came to the Isthmus, brought to Colon on Wednesday, May 6, a detachment of 690 sailors, some destined for the fleet at San Francisco, and others for service on the China station, to take the place of men whose terms of enlistment have expired. On Friday, May 8, the U. S. S. *Buffalo* arrived at Panama and the sailors were carried across the Isthmus on a special train and put aboard. The *Buffalo* will sail for San Francisco on Friday, May 15.

A watch fob marked: "Second prize, declamation: June 18, 1901, Bordentown Military Institute," has been left at the Commission club house, Cristobal, it having been found in Colon. Owner please communicate with the secretary of the Y. M. C. A. at Cristobal.

HEALTH REPORT FOR APRIL.

Conditions Continue to Improve.

To the Chairman, Isthmian Canal Commission, Culebra, C. Z.

Sir: I have the pleasure of forwarding to you this month the most favorable monthly report so far published by the Sanitary Department.

The general death rate for the Zone (including Panama and Colon), 20 04. is about a fair death rate for a healthy city of the United States. While a great many of our cities have a smaller death rate than this, a goodly number have a larger death rate.

In April, 1907, we had a population of 97,815 with 334 deaths, giving us a yearly death rate of 40.97 per thousand. In April, 1908, we had a population of 116,178, with 194 deaths, giving us a rate of 20.04 per thousand; that is with a larger population in 1908 than in 1907, we had 140 fewer deaths, and the death rate was reduced just one-half.

In the City of Panama, the death rate is about the same for the two years. In Colon, during April, 1907, we had a population of 14,263, with 53 deaths, giving us a yearly death rate of 44.59 per thousand. In 1908, for the month of April, we had a population of 15,583, with 23 deaths, giving us a yearly death rate of 17 71 per thousand, a decrease of more than half, both in the number of deaths and in the death rate.

In the Canal Zone proper, excluding the cities of Panama and Colon, we had in April, 1907, a population of 51,569, with 200 deaths, giving us a yearly death rate of 46.53 per thousand. In 1908, we had a population of 64,207, with 80 deaths, giving us a yearly death rate of 14.95 per thousand; less than half the deaths, and half the rate of the preceding year.

Taking our employes, we make a still better showing as to death rates. In 1907, we had on our rolls for April, 38,165 employes, with 123 deaths, giving us a rate of 38.67 per thousand. In April, 1908, we had on our rolls, 44,753 employes, with 29 deaths, giving us a yearly death rate of 7.77 per thousand. We had, actually, for the month, one-fourth the number of deaths among our employes, that we had in April, 1907, and the death rate is less than one-fourth of what it was last April. If the rates for April, 1907 had prevailed this April, we would have had among our employes 144 deaths. As it was we had 29 deaths, showing a saving of 115 lives for employes during the month.

Taking white employes, we find no great difference between the two years. Their rate was low both years. For April, 1907, the yearly death rate for the whites was 10.61 per thousand; this year for the month of April, it was 9.74 per thousand, but when we come to the negro employes, we find a most gratifying improvement. In April, 1907, we had on our rolls 27,995 negro employes, with 114 deaths, giving us a yearly death rate of 48.86 per thousand. In 1908, for the month of April, we had 32,439 negro employes on our rolls, with 19 deaths, giving us a yearly death rate of 7.03 per thousand. With a considerably larger force, we had an actual decrease in the number of deaths of 95, and for the month, in the yearly death rate, 41 per thousand.

It is worthy of remark that the death rate for our negro employes, has been steadily falling for the past year. In March it fell lower than that of the whites, and in April it was again lower, though if we deduct deaths due to violence from the two races, the death rate of the whites will be lower than that of the blacks—for the whites a yearly death rate for the month of 2.92, and for the blacks, 5.14.

We have connected with the Commission 8,992 American whites. This figure is made up of 6,192 men, and 2,799 women and children. Among these we had only one death due to disease contracted on the Isthmus. This was a case of pulmonary tuberculosis. This would give us a yearly rate of 1.33 for diseases contracted on the Isthmus.

Taking individual diseases, we had no deaths from typhoid fever, and only one death from malaria, among our employes. In 1907, during April, we treated in our hospitals 816 cases of malaria, with 10 deaths; in 1908, during April, we treated in our hospitals 407 cases of malaria, with no deaths, showing a decrease in the number of cases of malaria of just one-half, and a very marked decrease in the severity of its type.

The sick rate also makes a very good showing. We probably had the smallest sick rate that we have so far had for our force—17.09 per thousand. Last year, for this month, it was 21.52 per thousand.

Plague continues rife at Guayaquil, just south of us, and has been officially reported during the month as epidemic at La Guayra. No cases occurred on the Isthmus during the month, nor have we had any case since August, 1905. No case of yellow fever has occurred on the Isthmus since May, 1906.

Very respectfully yours,
(Sgd.) WM. C. GORGAS,
Chief Sanitary Officer.

Ancon, C. Z., May 9, 1908.

Accountable Property.

The following was adopted by the Isthmian Canal Commission on March 21:

Resolved, That property belonging to the Isthmian Canal Commission shall be disposed of and accounted for under the following regulations:

All property belonging to the Isthmian Canal Commission shall be classified as "Expendable" or "Non-Expendable," as may be indicated in a list of property prepared by the Board of Survey and Appraisal and published from time to time.

All articles of whatever nature in storehouses under the Division of Material and Supplies, carried in stock for issue, will be accounted for monthly to the Disbursing Officer by a statement of issues and receipts, showing to whom or for what purpose issued. All articles in division stores will be accounted for by monthly material applied reports to heads of departments.

All non-expendable articles will be borne on property returns until they have been transferred, dropped, or disposed of in conformity with these regulations, or in accordance with the action of the Board of Survey and Appraisal.

No articles shall be dropped under the head "Expended" except those that become fixtures, or lose their identity in use; all others shall be preserved and submitted for action of the Board of Survey and Appraisal.

Upon their certificate that the articles were worn out in the public service, are worthless, and have no salable value, officers are authorized to drop from their property returns, without the action of the Board of Survey and Appraisal, or of an inspecting officer, brooms, sponges, chamois skins, dish cloths, dish towels, dusters, mops, brushes, and convict clothing. The certificate will accompany the returns on which the articles are dropped.

Upon their certificate that the articles were actually broken in service, without carelessness or neglect, officers are authorized to drop from their property returns articles of china and glassware belonging to mess outfits; provided, that the number of articles of one kind so dropped in one quarter of a fiscal year shall not exceed 20 per cent. of the number of that kind carried on the returns, and in any fiscal year 60 per cent. of such number. The certificates will accompany the returns on which the articles are dropped. All linen issued to the Department of Labor, Quarters and Subsistence may be dropped as provided herein.

All medical supplies shall be disposed of and accounted for in accordance with the Manual for the Medical Department of the United States Army, 1906, except in cases where the Manual conflicts with the list mentioned in Paragraph 1.

Platform on Balboa Hill.

A platform has been built on top of Balboa hill, about three and one-half miles from Gorgona, by Mr. Fletcher Stevens, from which both the Atlantic and Pacific oceans are visible on a clear day without the aid of a glass. The line of the Canal can also be seen for a long distance as can likewise most of the towns in the Zone. An American flag, which has been raised above the platform, is visible from Gorgona.

No More Failure Predictions.

Another record was established in March by the engineers in charge of the Panama Canal, the excavation reaching a total of 3,480,270 cubic yards. The best previous month's work was reported in February, when the removal of 2,945,880 cubic yards was considered phenomenal. Since last August the monthly records have been successfully broken, and even the chronic fault-finders in Congress have been silenced for the time being. The prediction that the Canal enterprise is to be the "most colossal failure in history," which was sometimes overworked in the past, has been aired, we believe, only once during the present session, and upon that occasion by an Ohio member who was at the time suggesting the abandonment of the Canal enterprise and the diversion of the funds alotted to its construction for the payment of a dollar a day to every civil war pensioner.

The excellent progress of the Canal work is especially gratifying to the people of the Southern States and to those residing in the Mississippi Valley, who will probably reap the most direct advantage from the great Canal. It is reasonably well assured that the prophecies of its comparatively early completion may be borne out. There seems to be little or no friction, and every department of the work is making steady improvement. Thorough and systematic sanitation has so reduced the death rate among the employes that it compares very well with that of American communities. The work is proceeding not only at top speed, but with a thoroughness and precision that have restored the American engineering prestige, at one time somewhat damaged by the dilatory progress, intermittent bickering and successive resignations which afforded our foreign friends no little amusement in the earlier days of the Canal undertaking.—*New Orleans Times-Democrat*, April 20.

OFFICIAL CIRCULARS.

Accountable Officers.

(SUPERSEDING CIRCULAR NO. 27 OF THE LOCAL AUDITOR, JUNE 11, 1906).

Office of Disbursing Officer,
Empire, C. Z., April 22, 1908.

Circular No. 37.

TO ALL CONCERNED: The following list of officers are designated as responsible and accountable officers for the Isthmian Canal Commission property in their hands, and will render inventories and property returns therefor, in accordance with regulations or such instructions as may, from time to time, be issued:

Accountable Officers	*Division*
CHAIRMAN'S OFFICE	
(THROUGH THE CHAIRMAN)	
Chairman	For Chairman and Chief Engineer's office, including offices of heads of Department Excavation and Dredging, Lock and Dam Construction, Mechanical, Building Construction and Municipal Engineering, Office Engineer and Office of Secretary of Commission
Superintendent	Division of Club Houses
Chairman Board of Directors	I. C. C. Band
DEPARTMENT OF CONSTRUCTION AND ENGINEERING	
(THROUGH HEAD OF DEPARTMENT OF EXCAVATION AND DREDGING.)	
Division Engineer	Chagres Division
Division Engineer	Culebra Division
Division Engineer	Colon Dredging Division
Division Engineer	La Boca Dredging Division
(THROUGH HEAD OF DEPARTMENT LOCK AND DAM CONSTRUCTION)	
Division Engineer	Gatun Locks Division
Division Engineer	Gatun Dam Division
Division Engineer	Pacific Division Locks and Dams
Division Engineer	Meteorology and River Hydraulics
(THROUGH HEAD OF DEPARTMENT)	
Division Engineer	Division Municipal Engineering
Supt. M. P. and M.	Mechanical Division (M. P. and M.)
(Master mechanics	Respective shops)
Master Builder	Division of Building Construction
DIVISION OF MATERIAL AND SUPPLIES	
(THROUGH CHIEF, DIVISION OF MATERIAL AND SUPPLIES)	
Chief Clerk	General office, Cristobal, Typewriter repair shop, Cristobal
Storekeeper, Mount Hope	Mount Hope store, Dry Dock store, and Dock 14
Storekeeper, Gorg'a.	Gorgona store
Storekeeper, Empire.	Empire store, Bas Obispo store, Culebra store, Lirio lumber yard, office and tools in M. and S. care
Storekeeper, Paraiso	Paraiso store
Storekeeper, Ancon.	Ancon store
Storekeeper, La Boca	La Boca store
Stationer and Printer	Printing plant, Panama, stationery storehouse, Panama
Supt. Transportation	All corrals
Local Express Agt.	Local express office, Cristobal; all corral supplies, forage, etc., Cristobal
DEPARTMENT OF CIVIL ADMINISTRATION	
(THROUGH HEAD OF DEPARTMENT CIVIL ADMINISTRATION)	
Executive Secretary.	Department General Offices
Prosecut'g Attorn'y	His office
Clerks of Courts	Court property
District Judges	Their courts
Collector of Revenues and Director of Posts	Separate returns for revenues, lands, posts
Chief of Police	Police Department
Chief	Fire Department
Superintendent	Division of Public Works
Superintendent	Zone Public Schools
DEPARTMENT OF LABOR, QUARTERS AND SUBSISTENCE	
(THROUGH HEAD OF DEPARTMENT)	
Manager	General Office
Superintendent	Ancon Division, Tivoli Hotel, residences of Governor and Secretary of Commission, and American Legation
Superintendent	Empire Division, residences of members of Commission
Superintendent	Gorgona Division
Superintendent	Cristobal Division, and for all hotel property
Special Disbursing Officers and Labor Agents in charge of Recruiting	
DEPARTMENT OF SANITATION	
(THROUGH CHIEF SANITARY OFFICER)	
Executive Officer	General Office
Health Officer	Health office, Panama
Health Officer	Health office, Colon
Health Officer	Health office, Bocas del Toro
Health Officer	Health office, Porto Bello
Chief Sanitary Inspector	Division Sanitary Inspection
Chief Quarantine Officer	Quarantine office, Panama
Quarantine Officer	Quarantine office, Colon
Storekeeper	Medical storehouse
Superintendent	Ancon hospital
Director of Hospitals	Hospital Division Office, hospital launch, etc.
Superintendent	Colon hospital
Superintendent	Taboga sanitarium
Superintendent	Palo Seco leper asylum
District Physician	La Boca
District Physician	Corozal
District Physician	Tivoli Hotel
District Physician	Pedro Miguel
District Physician	Paraiso
District Physician	Culebra
District Physician	Empire
District Physician	Las Cascadas
District Physician	Bas Obispo
District Physician	Gorgona
District Physician	Tabernilla
District Physician	San Pablo
District Physician	Gatun
District Physician	Cristobal
DISBURSING OFFICE	
Disbursing Officer	Office on Isthmus
ACCOUNTS	
Examiner of Accounts	Office on Isthmus
PURCHASING DEPARTMENT	
General Purchasing Officer	I. C. C. property in U. S.

All other officers and employes are responsible, but not accountable.

On March 30, Circular No. 33, accompanied by samples of new Non-Expendable Property Record and Return, Forms D. O. 420, A and B, were forwarded to you, and should be carefully considered, so that there may be no delay in the effective date on which the new instructions with regard to the use of the form in question become effective—*i.e.*, July 1, 1908.

Respectfully,
(Sgd.) EDWARD J. WILLIAMS,
Disbursing Officer.

Approved:
(Sgd.) GEO W. GOETHALS,
Chairman and Chief Engineer.

Board of Survey and Appraisal.

CIRCULAR NO. 170:

The Board of Survey and Appraisal was created by resolution of the Isthmian Canal Commission at the twenty-second meeting of the Executive Committee, April 11, 1906.

Its duties are:

1. To pass upon the responsibility of officers and employes for lost or damaged property entrusted to their care.

2. To review, appraise, condemn and dispose of scrap, junk, and other material and equipment left by the French company on the Isthmus, from time to time, as necessary or as instructed, deciding what is usable by the Commission and the value that should be placed on it, and deciding what should be sold, and the minimum price for which it should be sold.

3. To review, appraise, condemn and dispose of tools, appliances, equipment, or material not properly expendable, of recent manufacture or purchase, which have become unserviceable by use, deterioration, wear or unfitness for the purpose for which such articles were secured; no such tools, appliances, equipment, or other non-expendable material to be destroyed or disposed of until such action has been authorized by such Board.

4. When inventories are taken to fix the values at which all equipment, machinery, materials, and supplies shall be taken into the inventory.

To enable the Board to perform its duties properly, its members and inspectors should have the fullest opportunity to make such investigations at first hand, and to question witnesses direct, either orally or in writing, and all papers submitted should be retained in the files of the Board.

In order to facilitate the work, blanks should be carefully filled out, giving all information called for and property to be surveyed collected and arranged so as to be easily examined.

Requests for survey should be made as often as the quantity of unserviceable material will warrant, and on account of lost property, as soon after loss as possible, and should be made on Form D. O. 439-439-a (old form A-178a-b), and Form D. O. 438 (old form A-179). All information called for on the form must be furnished. A full description of each article must be given, and its value stated. For example: Tape measure, 50-ft., should be shown as "tape measure, 50-ft., metallic (or steel); can, oil, should be shown as can, oil, pint, tin, copper or brass, long or short spout; track jacks should be shown as jack, track, giving the proprietary name, number, etc. The information called for is required, in order that the items may be located on the property records of the Disbursing Office."

Respectfully,
GEO. W. GOETHALS,
Chairman.

Culebra, May 1, 1908.

Acting Chief Clerk, Office of the Chairman.

ALL CONCERNED:

Mr. Benj. L. Jacobson will act as Chief Clerk of this office during the absence of Mr. C. A. McIlvaine on leave.

Effective this date.

M. B. DEPUTRON,
Assistant to the Chairman.

May 6, 1908.

Acting Chief Clerk of Disbursing Office.

DEPARTMENT OF DISBURSEMENTS,
Empire, C. Z., May 2, 1908.

CIRCULAR LETTER.

TO ALL CONCERNED: F. E. Porter is hereby designated Acting Chief Clerk of this office and as such, and until further orders, he is authorized to sign official papers and correspondence emanating in this office, and to do and perform all and singular the duties devolving upon the Chief Clerk of the Disbursing Office.

(Sgd.) EDWARD J. WILLIAMS,
Disbursing Officer.

Pay for Holidays.

CIRCULAR NO. 132—D.

The provision of Circular No. 132, that "all employes whose compensation is fixed on an hourly basis and who work on the days prior and subsequent thereto, will be allowed pay for the following holidays," contemplates that:

An employe shall be entitled to gratuity pay for the holiday, if he is in a pay status on the day preceding the holiday, by reason of authorized sick leave or injury leave, and actually at work on the day following the holiday, or *vice versa.*

An employe who is in a pay status by reason of authorized sick leave or injury leave on both the day preceding and the day following the holiday, and the holiday, shall not be allowed gratuity pay for the holiday, but will be paid for same as a day of sick leave or injury leave.

An employe who is not in a pay status for any reason whatsoever on both the day preceding and the day following the holiday, shall not be entitled to gratuity pay for the holiday.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, May 7, 1908.

Responsibility for Tools and Material.

CIRCULAR NO. 171.

All employes are responsible for tools and material used by them, and they must account to the heads of their respective divisions therefor.

In case of loss or damage due to the wilful neglect or carelessness of an employe, the head of the division will make deduction against the employe on the pay roll.

Heads of divisions will show the necessary pay roll reference on property returns, so that deductions may be properly checked.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, May 9, 1908.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

REPORT FOR APRIL, 1908.

Total membership	1,397
Total number of bowling games	5,710
Average per day	223
Total number of pool and billiard games	12,164
Average per day	475
Total income from soda fountain	$1,552.74
Average per day	$51.66
Number of different men using gymnasium	220
Number of men enrolled in systematic gymnasium class work	80
Total attendance of men using gymnasium	897
Average per day	53
Number enrolled in chess and checker clubs	75
Number enrolled in camera clubs	6
Number enrolled in orchestras	14
Number enrolled in Bible clubs	38
Number enrolled in educational classes	69
Spanish	24
Mechanial drawing	6
First aid	6
Short hand	21
Number of members of library	6
Total number of books withdrawn	401
Number of Sunday meetings	1,175
Average attendance	10
Number of educational, practical and travel lectures	369
Number of imported entertainments	9
Average attendance	253
Number of local entertainments	9
Average attendance	232
Number of functions outside of Association management	15
Average attendance	113
Number of afternoons for women	31
Average attendance	14
Number of evening functions to which women were invited	49
Average attendance of women	47
Number of committees	33
Different men on committees	138
Number of men called on in hospitals	62
Number of letters written at public tables	5,025
Average per day	168
Total attendance at buildings	38,257
Average attendance per day	1,275
Number of local bowling contests	37
Average attendance	26
Number of match bowling contests	10
Average attendance	57
Number of chess contests	4
Average attendance	15
Number of basket ball games	5
Average attedance	86
Number of contestants in billiard tournament	33
Number of contestants in pool tournament	18
Number training systematically in outdoor athletics	32

The standing of the teams in the second-team bowling tournament wich closed on May 4, was as follows:

Team	*Played*	*Won*	*Lost*	*Per cent*
Empire	36	28	8	.7778
Culebra	36	20	16	.5556
Cristobal	36	19	17	.5278
Gorgona	36	5	31	.1379

Highest individual scores—(18 or more games), Drake, Empire, 244; Winters, Culebra, 238; Pullman, Culebra, 225; Hayes, Empire, 213; Wolf, Cristobal, 211.

Highest team score—Empire, 935; Cristobal, 896; Culebra, 894; Gorgona, 825.

GORGONA.

A smoker was given at the club house on Thursday evening, May 7, the first anniversary of the opening of the Y. M. C. A. work at Gorgona. There was a large attendance and a program consisting of music and speeches was given. A committee composed of Messrs. F. M. Chelf, D. E. Hayes, L. N. Hennem, G. C. Ferris, W. F. Morrison, J. H. MacConaughy, C. S. Boyer, R. R. Robinson, Dr. Robert C. Macy, E. P. Haldeman and Wallace Wright, was selected to review the work of the past year and to make recommendations for the work of the future.

EMPIRE.

The junior members of the Empire Y. M. C. A wish to thank the office of the Director of Hospitals which made possible the pleasant trip to Taboga last Saturday. Similar outings are being planned for the juniors which will give the boys an opportunity to see something of the Isthmus.

The local bowling tournament that closed last week was won by the Culebra Division team. The standing was as follows:

	Played.	*Won.*	*Lost.*	*Per cent.*
Culebra Division	15	11	4	732
Base ball	15	8	7	555
Post-office	15	8	7	555
Machine office	15	8	7	555
Machine shop	15	7	8	466
Disbursing office	15	3	12	200

The result of the pool tournament recently finished was as follows:

First prize class A, won by S. J. Kennedy; second prize, class A, won by D. J. McKeever; first prize, class B, won by Irvin R Thomas; second prize, class B, won by L. A. Moeller; prize for high run, won by W. H. Hall.

Isthmian Baseball League.

Scores, May 10, 1908:

At Ancon Park: No game; rain.

At Empire Park: No game; rain.

At Gorgona Park: Kangaroos, 2; Gorgona, 1 (ten innings).

STANDING OF THE LEAGUE.

May 11, 1908:

	Played	*Won*	*Lost*	*Per cent*
Ancon	17	15	2	882
M. P. & M	18	14	4	777
Empire	17	13	4	765
Culebra	18	8	10	444
Kangaroos	19	8	11	421
Gorgona	19	4	15	211
Marines	18	1	17	055

To be played May 17, 1908:

At Ancon Park: Ancon vs. M. P. & M.

At Empire Park: Empire vs. Kangaroos.

Games at Empire and Gorgona parks will start at 9.30 a. m. in the future, instead of at 2 30 p. m., as heretofore.

COMMISSARY DEPARTMENT.

NOTICE.

On and after Sunday, April 5, the Commissaries will not be open for business on Sundays or Legal Holidays. Purchases should be made on Saturday or the day preceding a holiday.

JOHN BURKE,
Manager.

COMMISSARY PRICES

For week ending May 12:

FRESH MEATS.

		Price. CTS
Beef—Sirloin roast	per lb	28
Rump roast	do	28
Porterhouse	do	28
Rib-roast, short-cut, (not under 3½ pounds	do	20
Rib-roast, second cut	do	17
Chuck-roast	do	13
Soup	do	7
Stew	do	12
Corned	do	10, 12 14
Suet	do	4
Steaks—Sirloin	do	28
Porterhouse	do	28
Rump	do	28
Round	do	20
Veal—Cutlets	do	24
Short-cut chops	do	24
Loin	do	23
Entire forequarters	do	11
For stewing	do	11
Mutton—Entire forequarters	do	9
Short-cut chops	do	20
Leg	do	18
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	30
Legs	do	28
Pork—Cuts	do	20

MISCELLANEOUS

Livers—Beef	per lb...	10½
Sausage—Pork	per lb...	16
Bologna	do	15
Frankfurter	do	15
Sweet bread—Veal	each...	1.20
Tripe, pickled, Honeycomb	do	12
Pigs' tongues(salted)	per lb...	24
Pigs' tongues, pickled and cooked.	do	11
Pigs' feet	do	†11
Ox tongues	each...	90

POULTRY AND GAME

Chickens, dressed (milk-fed),	each...	1.50
Chickens, large	do	†1.70
Fowls	do	1.10
Ducks, fatted (fancy)	do	1.15
Suckling pigs	do	4.90
Turkeys	per lb...	26
Squabs	do	35
Broilers (chicken frys)	each...	90
Eggs, fresh	per doz...	28
Geese (10 lbs.)	each...	2.00

CURED MEATS AND LARD

Bacon—Strips	per lb...	23
English breakfast, sliced..	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45
Whole, Ferris	do	19
Tropical	do	18

DAIRY PRODUCTS

Butter—prints, prime quality	per lb...	40
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	33
Gouda	do	34
Edam	each...	1.05
Camembert	do	28
Pinxter's	tin...	22
McLaren's	jar...	15
Milk, Briarcliff	quart..	**25

FRUITS AND VEGETABLES.

Pineapples	each ..	*15
Oranges	per doz...	12
Grape Fruit	each...	†4
Lemons	per doz...	15
Apples	per lb...	4½
Beets	per lb...	6
Dandelions	per lb..	*10
Celery	bunch...	*25
White potatoes	per lb...	3
Cabbage	do	3
String beans	do	25
Onions	per lb...	†4½
Tomatoes	per lb...	11
Radishes	do	15
Lettuce	do	†18
Egg Plant	do	9
Sweet potatoes	per lb...	2½
Turnips, Rutabagas	per lb...	4½

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* *Indicates reductions from last list*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from Commissaries*

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	*New Price.* CTS.
Milk, Fussel's, Green Butterfly	tin	7½	5
Sauce, chile	bot	26	28
Pickles, dill	do	25	37
Coffee, M. & J., roasted, 2s	tin	70	72
Peaches, 3s	do	22	25
Alpargatas, stock No. 38,249	pr	25	20
Sticks, shaving, Williams, stock No. 38,141	ea	15	16
Shovels, stove, No. 54, stock No. 41,934	do	50	5

The price of this article, as shown on P. C. No. 262, is incorrect, being a clerical error.

NEW ARTICLES		*Price.* CTS.
Edges, Swiss, No. 75,225, stock No 41,819	do	13
Beading, No. 29,660, stock No. 41,821	do	7
Ribbon, Meteor, taffeta, black and white check, stock No. 41,822	do	15
Ribbon, Meteor, taffeta, blue and white check, stock No. 41,823	do	17
Tape measures, No. 28, stock No. 41,824	each...	7
Pins, hair, horn, No. 731, stock No. 41,825	doz...	25
Pins, hair, horn, No. 271, stock 41,826	do	9
Pins, hair, horn, No. 896, stock No. 41,827	do	33
Pins, hair, horn, No. 407, stock No. 41,828	do	13
Hooks and eyes, silvered, Dorcas, No. 0, stock No. 41,829	card...	5
Hooks and eyes, silvered, Dorcas, No. 1, stock No. 41,831	do	5
Hooks add eyes, silvered, Dorcas, No. 2, stock No. 41,832	do	5
Hooks and eyes, silvered, Dorcas, No. 3, stock No. 41,833	do	5
Hooks and eyes, silvered, Dorcas, No. 4, stock No. 41,834	do	5
Hooks and eyes, silvered, Gripit, No. 0, stock Nó. 41,835	do	2
Hooks and eyes, silvered, Gripit, No. 1, stock No. 41,836	do	2
Hooks and eyes, silvered, Gripit, No 2, stock No 41,837	do	2
Hooks and eyes, silvered, Gripit, No. 3, stock No. 41,838	do	2
Hooks and eyes, silvered, Gripit, No. 2, stock No 41,839	do	4

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Maj. D. D. Gaillard, U. S. A., Culebra.
Maj. Wm. L. Sibert, U. S. A., Culebra.
Civil Engineer H. H. Rousseau, U. S. N., Culebra.
Mr. Jo C. S. Blackburn, Ancon.
Col. W. C. Gorgas, U. S. A., Ancon
Mr. Jackson Smith, Culebra.
Mr. Joseph Bucklin Bishop, Secretary, Ancon

DEPARTMENTS.

Construction and Engineering.

Lieut.-Col. Geo. W. Goethals, U. S. A., Chairman and Chief Engineer, Culebra.
Wm. Howard May, Secretary
M. B. DePutron, Assistant to the Chairman and Chief Engineer.
C. A. Mc Ilvaine, Chief Clerk.
A. B. Nichols, Office Engineer.

Department of Excavation and Dredging: Maj. D. D. Gaillard, U. S. A., Culebra.
W. T. Haynie, Secretary.

Maj. Edgar Jadwin, U. S. A., Division Engineer, Gorgona.
Capt. George M. Hoffman, U. S. A., Assistant Division Engineer, Gorgona.
D. W. Bolich, Division Engineer, Empire.
S. J. Kennedy, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer, Empire.
Wm Gerig, Division Engineer, Gatun.
Mrs. C. L. MacPherson, Chief Clerk.
[illegible] Comber, Division Engineer, La Boca.
David V. Stratton, Chief Clerk.

epartment of Lock and Dam Construction: Maj. Wm. L. Sibert, U. S. A., Culebra.
S. M. Sands, Secretary.

Maj. Chester Harding, U. S. A., Division Engineer, Gatun.
Capt. Horton W. Stickle, U. S. A., Assistant Division Engineer, Gatun.
E. P. Thompson, Chief Clerk.
Wm. Gerig, Division Engineer, Cristobal.
Caleb M. Saville, Assistant Division Engineer, Gatun.
Sydney B. Williamson, Division Engineer, Corozal.
G. B. Strickler, Assistant Division Engineer, Corozal.
E. A. LeMay, Chief Clerk.
Edward Schildhauer, Electrical and Mechanical Engineer, Culebra.
L. D. Cornish, H. F. Tucker, Designing Engineers, Masonry Design, Culebra.
R. M. Arango, Division Engineer (Division of Meteorology and River Hydraulics). Ancon
D. W. MacCormack, Chief Clerk.

Design of Lock Gates:
Lieut-Col. H. F. Hodges, U. S. A., in charge.
Henry Goldmark, David Molitor, Designing Engineers.

Department of Municipal Engineering, Motive Power and Machinery, and Building Construction: Civil Engineer H. H. Rousseau, U. S. N., Culebra.
J. C. Parsons, Secretary.

J. G. Holcombe, Division Engineer (Division of Municipal Engineering), Ancon.
E. C. McFarland, Chief Clerk.
George D. Brooke, Superintendent, Motive Power and Machinery, Culebra.
F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.
W. M. Belding, Master Builder (Divsion of Building Construction), Culebra.
P. O. Wright, jr., Architect, Culebra.
J. H. Barbour, Chief Clerk.

ivision of Material and Supplies: W. G. Tubby, Chief, Cristobal.
M. A. Follman, Private Secretary.
Max Dyer, Chief Clerk, Cristobal.
W. C. Haskins, Chief Clerk, Ancon.
Wm. Krugel, Stationer and Printer, Ancon.

Civil Administration.

Hon. Jo C. S. Blackburn, Head of the Department, Ancon.
H. O. Reed, Executive Secretary, Ancon.
J. K. Baxter, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
Herman A. Gudger, Deputy Collector, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
George R. Shanton, Chief of Police, Ancon
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
Charles F. Koerner, Asst. Chief, Cristobal.
Addison Bligh, Chief Clerk.
Geo. L. Campen, Superintendent of Public Works, Ancon.
C. R. Sargent, Chief Clerk.
David C. O'Conner, Superintendent of Schools, Ancon.

Canal Zone Judiciary.

Supreme Court: Dr. F. Mutis Durán, Chief Justice, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Walter Emery, Clerk of Court, Ancon.
Circuit Court, First circuit: Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second circuit: H. A. Gudger, Judge, Empire,
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third circuit: Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
Geo. H. Bartholomew, Asst. Attorney for Isthmian Canal Commission and Panama Railroad, Ancon.
Prosecuting Attorney: George M. Shontz, Ancon.
M. C. Rerdell, Senior District Judge, Cristobal
Thomas E. Brown, jr., District Judge, Cristobal.
S. E. Blackburn, District Judge, La Boca.
Edgar S. Garrison, District Judge, Empire.
R. C. Goodale, District Judge, Gorgona.

Sanitation.

Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, Ancon.
Maj. C. C. McCulloch, jr., U. S. A., Executive Officer, Ancon.
Harry E. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent, Ancon Hospital, Ancon.
Capt. Alexander Murray, U. S. A., Asst. to the Supt.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S., Quarantine Officer, Colon.
Dr. Fleetwood Gruver, Quarantine Officer, Panama.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Labor, Quarters and Subsistence.

Jackson Smith, Manager, Culebra.
R. E. Wood, Assistant Manager, Culebra.
S. C. Klauber, Chief Clerk.
J. M. Maguire, Superintendent, La Boca Division, Ancon.
Charles L. Parker, Superintendent, Gorgona Division, Gorgona.
Edgar Lowe, Superintendent, Cristobal Division, Cristobal.
C. C. McColley, Superintendent, Culebra Division, Empire.

Disbursements.

Edward J. Williams, Disbursing Officer, Empire.
Wm. M. Wood, Chief Clerk.

Examiner of Accounts.

H. L. Stuntz, Empire.
W. D. Mabry, Chief Clerk.

Panama Railroad Company.

H. J. Slifer, Assistant to the President, and General Manager, Colon.
W. G. Tucker, Secretary, Colon.

Commissary Department

John Burke, Manager, Cristobal.
P. T. Murphy, Asst. Manager, Cristobal.

Purchasing Department.

Headquarters, Washington, D. C., U. S. A.

Lieut.-Col. H. F. Hodges, U. S. A., General Purchasing Officer.
C. E. Dole, Chief-Clerk.

F. C. Nordsick, Asst. Purchasing Agent, 24 State Street, New York City.
S. E. Redfern, Asst. Purchasing Agent, Custom House, New Orleans, La.
W. G. Tubby, Purchasing Agent on the Isthmus, Cristobal, Canal Zone.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON

Advance	P.R.R.	Saturday	May	9
Prinz Joachim	H.-A.	Saturday	May	9
Panama	P.R.R.	Thursday	May	14
Pr. Eitel Friedrich	H.-A.	Friday	May	15
Trent	R.-M.	Saturday	May	16
Allianca	P. R.R.	Tuesday	May	19
Prinz Aug. Wilh'lm	H.-A.	Saturday	May	23
Finance	P. R.R.	Monday	May	25
Prinz Sigismund	H.-A.	Friday	May	29
Tagus	R.-M.	Saturday	May	30

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon

FROM COLON TO NEW YORK

Esperanza	P.R.R	Saturday	May	16
Tagus	R.-M.	Tuesday	May	19
Advance	P. R R.	Friday	May	22
Prinz Joachim	H.-A.	Tuesday	May	26
Panama	P.R.R.	Wednesday	May	27
Allianca	P R R.	Monday	June	1
Magdalena	R.-M.	Tuesday	June	2
Finance	P.R.R.	Saturday	June	6

FROM NEW ORLEANS TO COLON

Preston	U.F.C.	Saturday	May	9
Harry T. Inge	U F.C.	Saturday	May	16
Ellis	U.F.C.	Saturday	May	23

FROM COLON TO NEW ORLEANS

Preston	U.F.C.	Tuesday	May	19
Harry T. Inge	U.F.C.	Tuesday	May	26

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Trent	R.-M.	Tuesday	May	26
Tagus	R.-M.	Tuesday	June	9

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston Jamaica, for New York

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's Line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company despatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Antillian*, about May 16, and *Louisianian*, about May 25.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, May 9, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Alvard, C. A.
Anderson, J. L.
Anthincy, Augustus
Barber, William
Blake, A. O.
Blunt, William T.
Bradshaw, Geo
Brady, Thomas J.
Brady, Walter H. H.
Busha, Clarence
Chairman, A.
Clark, H. R.
Cook, R. W.
Cooper, E. J.
Curren, Taylor
Donahue, John V.
Erskins, G. O.
Esnault, James
Finn, Enos
Fulton, Robert Bruce
Gill, R. S.
Gilling, George
Hall, H. F.
Haper Adana
Harp, John L
Harris, Bill
Healy, Wm. C.
Henshaw, W. P.
Hobbs, Herbert C. (2)
Hogag, Walter
Holder, Edwin (2)
Hughes, Thos.
Hunter, Oscar R.
Kane, Louis C.
Knight, Walter
Lamson, Culboe
Lampson, Orson R.
London, J. G.
Marchand, Baulien
Mason, Thom.
Mayhew, H. L.
Moorish, Lawriel
Morrison, T. B.
Murray Alexander
Nolan Anna
Oberle, J. C.
Pring, C. E.
Puitt, J. B.
Rohe, Henry
Sapusink, Leon
Shea, William G.
Sheridan, W. E.
Soder, Frank J
Sullivan, William J.
Witmer, Wm. H.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, MAY 20, 1908. No. 38

The Canal Record

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ISTHMIAN CANAL COMMISSION

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NOTES OF PROGRESS.

Chairman's Monthly Report.

The report of the Chairman of the Isthmian Canal Commission for April is published in full in other columns of this issue of the RECORD. It gives, as usual, specific information as to the progress of Canal Construction in all divisions of the work. It shows that the total excavation in the Culebra Division during the month was 1,242,574 cubic yards, a decrease of 52,631 cubic yards as compared with the amount excavated in March. Of this amount 1,190,156 cubic yards were removed from the Canal prism and 52,418 cubic yards were taken from the Obispo diversion.

Compared with the work performed during the corresponding month of 1907, the total excavation by steam shovels in the Culebra Division was about 41 per cent. greater, and the average output per shovel per day was 57 per cent. greater; the amount of rock was six per cent. greater and the amount of earth was six per cent. less.

The number of working days this year was 25 against 26 in the same month last year, and the average number of steam shovels working during the month was 41 this year against 44 last year; the average amount of excavation per shovel per day this year was 1,201 cubic yards against 765 cubic yards last year, and the average amount excavated per shovel per month was 30,031 cubic yards this year against 19,884 last year.

The rainfall was light during both months under comparison, and the average number of laborers at work in the Culebra Division during the month was 97 less than the number at work during the month of March.

At the Gatun lock site seven steam shovels were at work during the month, excavating 225,467 cubic yards, of which amount, 29,358 cubic yards were taken from the site for the cableways. At the Gatun dam and spillway five steam shovels worked throughout the month, excavating a total of 147,989 cubic yards.

At the Miraflores lock site 92,261 cubic yards were excavated, and the construction of the bridge across the Rio Grande, near the south end of the lock site, was finished.

In the relocation of the Panama Railroad 35,640 cubic yards of material were excavated during the month, and 229,838 cubic yards were placed in embankments; 3,789 feet of permanent track were laid, making a total of 31,841 feet to date. The force of laborers engaged in the work of relocation averaged 1,250 men.

There were imported during the month 116 European and 188 West Indian laborers. The excess of independent steerage immigration over emigration was 477. The actual working force on the last day of April as compared with the last day of March shows a decrease of 46 men in the gold force, 41 men in the European laborers, and an increase of 653 in the colored laborers. The number of men actually at work on the last day of April was 26,118.

Subsistence operations for the month showed a loss of about $5,000 as against an estimated loss for March of $22. This loss was due to increased cost of staple commodities, it not being deemed wise to economize at the expense of the standard of food furnished.

Sea-Going Ladder Dredge A-3.

The rebuilding of the self-propelling sea-going ladder dredge No. A-3, a description of which was published in THE CANAL RECORD of November 13, 1907, has been completed and she is now at work in the Canal prism near La Boca.

After rebuilding operations were well under way it was determined to modernize the dredge. Fuel oil tanks and necessary piping were installed and she is now burning fuel oil and giving complete satisfaction. This is the first dredge on the Canal work to use oil for fuel. The rebuilding of the dredge was completed on May 1, and after a short test trip in the harbor, she was put to work on May 4, relieving dredge A-2, which has been constantly at work for nearly six years.

Dykes South of Cardenas Hill.

Cardenas Hill, which is about one-half mile south of the Miraflores lock site and directly on the center line of the Canal prism, is being removed by steam shovels at the rate of about 12,000 cubic yards a month, and it is expected that this work will be finished the latter part of the present year, after which the excavation will be completed with dredges.

The material from the hill is being used to form two retaining walls or dykes, one on each side of the Canal prism, behind which the section dredges can pump their material to allow the earth portion to settle before the water runs off through sluice-ways. These dykes are about nine feet higher than the swamp through which the line of the Canal runs, and are being built without the aid of a trestle. Track is laid on the surface of the swamp and light French engines and cars are run over it, brush corduroy being used whenever absolutely necessary, and the dykes gradually built up to the required height as the dumping of material proceeds.

Replenishing the Labor Supply.

Over three hundred recruits were added to the labor force last week by the arrival, May 14, of the *Perou* from Santander, Spain, with 76 adults and 14 members of families on board, and May 17 of the *Tagus* with 207 Barbadians. These laborers will fill the places of men who have left the Zone, either to visit their homes or to work elsewhere. Some loss of men is due to the fact that contractors in South America, on both the Atlantic and Pacific sides, are drawing on the Isthmus for a labor supply. Their recruiting operations are confined principally to men who have been here a year or more and who, in response to the spirit of adventure, are induced to try new fields. These drafts on the labor supply will force an increase in the importations for a few months.

Slide at Paraiso.

On the east bank of the Canal at Paraiso, the old slide, that probably dates from the days of the French company, is again active. The break became noticeable early in April, and at present a 70-ton and 90-ton shovel are kept busy handling the dirt that creeps down the hill in such great quantities that its progress is noticeable from day to day. If the unusually heavy rainfall continues the engineers feel it will be a hard fight to keep the loading tracks clear for operating the dump trains, although the problem presented is merely that of removing the dirt as fast as it slides towards the track.

The limits of the old slide are 600 feet back from the east line of the Canal and 500 feet back from the steam shovel cut. It is believed that removal of dirt from the toe of the hill by the steam shovels caused the surface dirt to slide on its bed of rock and that the heavy rains accelerated its progress. The new slide extends only 200 feet back from the line of the steam shovel cut and is 500 feet long. At present about twenty-five thousand cubic yards of earth are sliding, but if continuous rains should start the whole mass within the limits of the old break, 100,000 cubic yards would be sliding toward the Canal.

A hamlet of laborers' houses, many of the buildings being old French quarters, is so affected by the slide that the Department of

NOTES OF PROGRESS.

(Continued)

Labor, Quarters and Subsistence has recommended the building of five standard-type laborers' barracks, to be located at the south end of Paraiso opposite the machine shops, and the removal to that site of common laborers' kitchen No. 28. Common laborers' mess house No. 75 has already been carried away, laborers' barracks 28, 69, 70, 74, and school house No. 100 have been moved. Barracks 63 and colored married quarters No. 90 are on the edge of the slide, and colored married quarters Nos. 118 to 132, inclusive, are affected. Such buildings as are worth saving are being moved, and the bunks in the barracks are being taken out and the buildings themselves torn down.

Several smaller slides in the vicinity of Culebra are causing trouble owing to the heavy rains. The loading track in that vicinity has been taken up to save it from being covered by the mud.

Work at the La Boca Ship Yard.

The 20-inch suction dredge No. 84 is being built for the Department of Lock and Dam Construction on the La Boca ship-ways. The hull and suction pipes are practically finished and she was launched on May 15. She will have her pumps and other machinery put in place after launching. It is expected that she will go into commission about August 1 and her first work will be in excavating the lock site at Miraflores.

The Panama Railroad Company's tug *Bolivar* has recently been given a general overhauling. A large fire pump was added to her equipment and she will be used for fire fighting purposes as the occasion demands. She was put back in service on May 11.

Fourth of July Celebration.

At the suggestion of the Chairman of the Commission, a meeting was held in the office of Commissioner Blackburn, at 8 o'clock on Saturday morning, May 16, to arrange for the Fourth of July celebration. Those present were: Commissioners Blackburn, Rousseau, Smith; Messrs. W. G. Tubby, E. J. Williams and H. D. Reed. An organization was effected, with the following chairmen of committees, constituting with Commissioner Blackburn, an executive committee:

Commissioner Rousseau, decorations; Commissioner Smith, entertainment; E. J. Williams, finance; W. G. Tubby, executive; H. J. Slifer, transportation; M. A. Follman, music; George R. Shanton, amusements; C. B. Matthews, Marines; H. D. Reed, publicity.

The chairman of each committee was authorized to appoint his associates on the committee, the number to be fixed by him.

It was decided to follow, generally, the same arrangements as last year. The celebration will be held at Ancon, and all Americans on the Isthmus will be asked to contribute to defray the expenses, and to be present. It was estimated that $3,000 will be necessary. Mr. Williams, chairman of the finance committee, was authorized to have subscription lists printed and circulated at once. Mr. Williams reported a balance on hand of $322.50 from the subscription for the celebration of the Fourth last year, available for expenditure this year.

Mr. Tubby was authorized to order immediately from the United States suitable fireworks to the value of $600.

The chairmen of committees were requested to prepare detailed plans for the part of the celebration in charge of their respective committees, and to report such plans, together with an estimate of the amount of money required to carry them out and the names of the persons selected to act with them on their committees, at the next meeting of the executive committee, which will be held in the office of Commissioner Blackburn at 8.30 o'clock, Saturday morning, May 30. It is expected that, by that date, all the subscription lists will be in, and the executive committee will know the amount of money available for expenditure.

Immediately after the next meeting, a complete program for the celebration will be published.

Governor Magoon's Mission

Governor Magoon has accepted a request from Secretary Taft to visit the Isthmus and act as umpire under the provisions of Articles 6 and 15 of the treaty between the Republic of Panama and the United States. Article 6 of that treaty provides:

> All damages caused to the owners of private lands or private property of any kind by reason of the grants contained in this treaty or by reason of the operations of the United States, its agents or employes, or by reason of the construction, maintenance, operation, sanitation and protection of the said Canal or of the works of sanitation and protection herein provided for, shall be appraised and settled by a joint commission appointed by the Governments of the United States and the Republic of Panama, whose decisions as to such damages shall be final and whose awards as to such damages shall be paid solely by the United States.

Article 15 provides as follows:

> The joint commission referred to in Article VI, shall be established as follows:
>
> The president of the United States shall nominate two persons and the President of the Republic of Panama shall nominate two persons and they shall proceed to a decision; but in case of disagreement of the commission (by reason of their being equally divided in conclusion) an umpire shall be appointed by the two Governments who shall render the decision. In the event of the death, absence, or incapacity of a commissioner or umpire, or of his omitting, declining or ceasing to act, his place shall be filled by the appointment of another person in the manner above indicated. All decisions by a majority of the commission or by the umpire shall be final.

The two commissioners for Panama and the two for the United States have not been announced, but it is understood that they have been practically agreed upon. Governor Magoon will arrive on June 8 and remain for two weeks.

Canal Oil Supply Threatened.

About 2.30 o'clock Wednesday morning, May 13, Tank No. 59, one of the Union Oil Company's four storage tanks at Mount Hope, was struck by lightning. The day before, workmen had begun painting the tank, and a long steel pin, placed in the center of the roof on which to fasten the slings and tackle of the painters' platforms, is referred to in the official report as the point that probably attracted the lightning. While the fire was in progress about six thousand barrels of oil were pumped out of tank No. 59 into an adjacent tank, and more would have been saved if the collapse of the roof had not stopped up the exit pipe. About eleven thousand barrels of oil were burned. The fire lasted 14 hours, and at one time threatened another of the tanks. So many of the pipes in the yard were burned out that oil could not delivered for the Canal work until the following day.

The fire wall, although only partly completed, kept the burning oil from flowing down the hill. It will be extended to guard the whole plant. Every precaution will be taken to guard against injury to surrounding property in case of recurrence of the accident, although the chance of this is small, as the Union Oil Company has lost only two tanks by fire in twenty-five years.

Congress Votes Against Reduction of Canal Wages.

[From the New York Tribune]

Washington, May 7.—An attempt to reduce the wages of laborers on the Panama Canal was frustrated in the House to-day. The Sundry Civil bill carried a provision that wages paid on the Isthmus for skilled and unskilled labor should not exceed by more than 25 per cent. the average wage paid in the United States for similar labor. This was ruled out on a point of order made by Representative Boutell, of Illinois, but promptly placed before the House again by Representative Macon, of Arkansas, who changed the language so as to make it admissible.

Mr. Boutell spoke against the amendment, taking the ground that the people of the United States want to see the Canal built and are not inclined to quibble about the wages paid to the diggers. He pictured the hardships and the homesickness that attend the work, and said that every comfort and inducement should be held out to laborers who went there. Representative Dawson, of Iowa, declared that it was impossible to determine the average wages of the laborers of the United States, while Mr. Hughes, of New Jersey, explained that if the amendment should be adopted the workers on the Isthmus would be receiving much less than the maximum wages paid in this country. Representatives Macon and Tawney spoke in favor of the amendment, which was defeated by a vote of 101 to 10.

[From the New York Tribune, May 9.]

The emoluments and the perquisites of workers on the Panama Canal Zone were scrutinized by the House in the debate on the appropriation bill Thursday, and it was estimated that these amount to 75 per cent. more than the wages paid to workers in the United States. The death rate at Panama is now as low as that of any American city. The men have free homes fuel, light, sterilized water, ice at 1 cent a pound, recreation facilities and thirty days vacation These facts were used in support of the proposed limitation of wages to not over 25 per cent. more than is customary in the United States.

With one exception the argument holds good. But this relates to whether, at reduced wages, enough laborers could be got to expedite the digging of the Canal. Had not the provision been voted down with substantial unanimity, figures would doubtless be forthcoming to show that the law of supply and demand operates with unexampled rigor in the climate of the Isthmus. The Government, now thoroughly committed to the Canal policy, cannot afford to haggle over wages in a way to to obstruct progress in building.

A "type 24" house is being built next to the administration building in Culebra for Division Engineer Sydney B. Williamson.

FINANCES OF THE CANAL.

Appropriations and Expenditures down to March 31, 1908.

The subjoined tabulated statement of appropriations and expenditures shows that $144,491,655.97 have been appropriated for the construction of the Canal between the Atlantic and Pacific oceans, and that of this amount at the end of March, 1908, a total of $128,530,252.19 have been expended. In explanation of the different items appearing in the statement it is to be said:

Appropriations—These items represent the various appropriations made by Congress in connection with the construction of the Isthmian Canal.

Miscellaneous—"Collections account of sale of Government property" represents amounts collected by the various disbursing officers which are to be, or have been, deposited as "Miscellaneous Receipts of U. S. Funds."

"Balance due individuals and companies" represents collections made from employes by the Disbursing Officer on the Isthmus for account of "Individuals and Companies," payments of which have not yet been made.

Classified Expenditures—The various items under this head represent the expenses of the Commission, which are located to units of work. Figures shown thereon include a percentage of general expenses, such as "Expenses in the United States" of the Material and Supply Division, Disbursing Officer, Examiner of Accounts and Department of Labor, Quarters and Subsistence.

The amount expended in preparatory work includes the cost of plant, $27,969,526.46; municipal improvements in Panama and Colon and on the Zone, $5,357,201.88, and a proportion of the amount, $3,112,770.98, shown under "Sanitation," which cannot be arrived at, owing to the fact that current sanitation and preparatory sanitation were not separated at the time such work was in progress.

The item of $2,365,524.18 for municipal improvements in the cities of Panama and Colon, is to be reimbursed to the United States through the collection of water works and sewer rentals for the period of 50 years. The amount shown is subject to correction based on the report of the Committee now engaged in preparing corrected cost of the work.

Rights-of-Way and Franchises—This item represents amounts paid the Republic of Panama for sovereignty over the Canal Zone and to the New Panama Canal Company for the Canal rights. From the original payment of $40,000,000 account of the latter item, there has been deducted the value of French material sold or used in construction—$796,735.06; this amount being included in the items "Classified Expenditures" and "Services rendered and material sold to individuals and companies."

The value of buildings turned over by the French, of the shares of the Panama Railroad Company, of work done on the Canal, etc., and of material remaining on hand but unused at this date, has never been charged to the different units for credit of the original payment, and remains in the balance of $39,203,264.94, shown in item "Rights Acquired from the New Panama Canal Company."

Panama Railroad Stock Purchases—This item represents the cost of shares of Panama Railroad stock which at the time of the transfer of the Canal by the French were in the hands of private parties, and have since been purchased by the Commission.

Loans to Panama Railroad Company for Re-equipment and Redemption of Bonds—This item represents loans made to Panama Railroad Company in accordance with Congressional appropriations, as follows:

For reequipment..... .... $2,192,663.61 covered by notes in favor of the Commission or the United States, bearing interest at the rate of 4 per cent. per annum.

For purchase of bonds.......... $2,148,217.50 covered by notes in favor of the United States, bearing interest at the rate of 2 per cent. per annum.

Deposits in the United States Treasury for sale of Government Property, etc—This item represents amounts deposited in the United States Treasury by the disbursing officers for sale of material and services rendered which, under the law, are considered as "Miscellaneous Receipts."

Services Rendered and Material sold to Individuals and Companies—This item represents the value of material, labor and services rendered the Panama Railroad Company and other outside interests, payment for which was made out of Congressional appropriations, but which, when sold, were deposited with the United States Treasurer as "Miscellaneous Receipts."

Unclassified Expenditures—"Material and Supplies on hand"—This item represents the value of material and supplies in transit from the States and on hand on the Isthmus which have not been used in any unit of work.

"Payments to Panama Railroad Company."—This item represents payments to the Panama Railroad Company for material and services, in course of classification.

"Other Unclassified Items"—This item represents disbursements held in suspense pending proper classification to the various units of the work.

Advances to Laborers for their Transportation.—This item represents balance of amount paid to steamship companies for transportation of European laborers to the Isthmus, which transportation is collected from *the laborers in monthly installments.*

The amount deducted from the total of the above items represents payroll expenditures for the month of March, and for prior months which, on March 31, had not been paid, but which are included in items "Classified Expenditures," etc.

Balance available, April 1, 1908—This item represents amounts available for expenditures on that date.

RECEIPTS.

Appropriations—		
Purchase of Canal rights, June 28, 1902		$40 000 000 00
Purchase of Canal Zone rights, April 28, 1904		10,000,000 00
Construction of Canal, June 28, 1902		10,000 000 00
Construction of Canal, December 21, 1905		11,000,000 00
Construction of Canal, February 27, 1906		5,990,786 00
Construction of Canal, June 30, 1906		25,456,415 08
Expenses in the United States	$ 368,242 69	
Construction, engineering and administration	21,018,537 24	
Civil administration	968,200 00	
Sanitation and hospitals	2,101,435 15	
Re-equipment of Panama railroad	1,000,000 00	
Construction of Canal, March 4, 1907		27,161,367 50
Expenses in the United States	253,000 00	
Construction, engineering and administration	20,366,000 00	
Civil administration	825,000 00	
Sanitation and hospitals	2,034,000 00	
Re-equipment of Panama railroad	1,385 000 00	
Purchase of Panama railroad bonds	2,298,367 50	
Construction of Canal, February 15, 1908		12,178,900 00
Expenses in the United States	18,600 00	
Construction, engineering and administration	11,990,400 00	
Sanitation and hospitals	169,900 00	
Total appropriations by Congress		141,787,468 58
Miscellaneous—		
Collections account sale of Government property, etc		2 699,530 14
Balance due individuals and companies, account collections from employes		4,657 25
Total receipts		144,491,655 97

DISBURSEMENTS.

Classified expenditures			66,802,047 88
Department of Civil Administration		1,985,505 69	
Department of Sanitation		6,328,262 22	
Hospitals	$3,215,491 24		
Sanitation	3,112,770 98		
Department of Construction and Engineering		30,518,753 51	
Canal construction	25,161,551 63		
Municipal improvements on Zone	2,991,677 70		
Municipal improvements in Panama and Colon	2,365,524 18		
Cost of plant		27,969,526 46	
Right-of-way and franchises			49,203,264 94
Rights acquired from Republic of Panama		10,000,000 00	
Rights acquired from the New Panama Canal Company		39,203,264 94	
Payment to New Panama Canal Company	40,000,000 00		
Less value of French material sold or used in construction	796,735 06		
Panama Railroad Company stock purchased			157,118 24
Loans to Panama Railroad Company for re-equipment and redemption of bonds			4,340,881 11
Deposits with United States Treasurer for sale of Government property, etc			2,638,437 90
Services rendered and material sold to individuals and companies			2,195,985 91
Unclassified expenditures			4,754,985 31
Material and supplies on hand	4,169,240 88		
Payments to Panama Railroad Company	559,988 90		
Other unclassified items	25,755 53		
Advances to laborers for their transportation			76,906 61
Total			130,169,627 90
Less amounts included above, but unpaid on March 31, 1908			1,639,375 71
Salaries and wages unpaid on pay rolls prior to March 1, 1908	185,303 88		
Pay rolls for the month of March, 1908	1,454,071 83		
Total disbursements			128,530,252 19
Balance available April 1, 1908			15,961,403 78
Congressional appropriations		15,895,654 29	
With Treasurer of the United States	11,020,348 08		
With Disbursing Officer Edward J. Williams	2,395,470 44		
With Disbursing Officer James G. Jester	2,457,878 77		
With Disbursing Officer LeRoy Parke	13,434 27		
With Disbursing Officer W. J. Karner	8,522 73		
Collections account of sales of Government property, etc		61,092 24	
With Disbursing Officer Edward J. Williams	61,092 24		
With Disbursing Officer James G. Jester	....		
Collections from employes account of individuals and companies		4,657 25	
With Disbursing Officer Edward J. Williams	4,657 25		
Total disbursed and available			$144,491,655 97

SOCIAL LIFE OF THE ZONE.

Charity Ball Given by the Cristobal Woman's Club Largely Attended.

The costume ball given by the Cristobal Woman's Club on May 9 was attended by about two hundred and fifty guests and was one of the largest functions ever given in Cristobal. The hall of the Commission club house was illuminated with colored lights and decorated. Mr. Eppelsheimer, as a mendicant, was stationed at the lower door to receive the tickets as the guests arrived, and the president of the club, Mrs. Lorin C. Collins, in a costume of the colonial period, welcomed them at the entrance of the ball room. The grand march was led by Mrs. Collins and Mr. Walter G. Tubby. Among the guests some especially interesting and attractive costumes were seen. The music was furnished by a new band and refreshments were served in the reading room. The Captain and officers of the U. S. S. *Prairie* were the guests of the club. A sum of about two hundred dollars was cleared which will be devoted to the use of the philanthropy department and become the nucleus of a fund to enable the department to take up the settlement work in which it is interested.

On Tuesday, May 12, a meeting of the officers of the Canal Zone Federation of Women's Clubs was held at the club house, Cristobal, the president, Mrs. Lorin C. Collins, presiding. The others present were Mrs. Wm. L. Sibert, Mrs. Sumner Coolidge, Mrs. J. C. Barnett and Miss Beattie; and for the conference of the club presidents, Mrs. J. M. Maguire, Ancon, Mrs. E. S. Calvit, Gorgona, Mrs. W. L. Stanton, Las Cascadas, and Mrs. E. L. Waid.

At the request of the president, Mrs. Coolidge read an address by the president of the General Federation of Women's clubs, Mrs. Sarah Platt Decker, before the Illinois State Federation, which dealt with the general work of women's clubs and especially the importance of department work. Later in the afternoon the president gave a short talk on the same subject, emphasizing the rights and responsibilities of members of committees and sub-committees.

The Federation has been divided into seven committees with the following chairmen: Literature and Music, Mrs. E. J. Williams; Education, Mrs. Coolidge; Home, Mrs. Chester Harding; Library Extension, Mrs. W. C. Gorgas; Printing and Credentials, Mrs. Frank Miracle; Transportation, Mrs. E. Lewis Baker; Philanthropy, Mrs. Thomas E. Brown. A nominating committee was also formed, with Mrs. J. M. Maguire as chairman; members, Mrs. Sibert, Mrs. Miracle and Mrs. Calvit. The members of the other committees will consist of the chairman of the corresponding department in each club.

The Gorgona club issued invitations to the officers of the Federation and other club members for Thursday afternoon, May 14, which occasion marked the close of the club for a recess of three months. The president reserves the right to issue calls for meetings during that time. The next regular meeting will be held on the fourth Thursday in August. The hall was decorated for the reception with plants and flowers and tea was served at small tables. During the musical program, which was given by Mrs. E. F. Orr, Mrs. Frank West, Mrs. Burgstrom, and Mrs. Charles Beetham, the president made a short address of welcome to the visiting clubs and of encouragement to the members in which several changes in club management were recommended.

The Gorgona club looks back upon a busy and profitable year. Organized ten months ago with a constitution which calls for quarterly election of officers, the management of the club has been in the following hands: first president, Mrs. Frank Morrison, who was re-elected for the second term; following her Mrs. R. C. Goodale was elected, and then Mrs. E. S. Calvit, who will serve until August. The club has a membership of fifty-three and has entertained over one hundred guests during the year.

The primary object of the club was to form a social centre of interest for the women of Gorgona, the original name of the organization being the Gorgona Social Club. Later, questions relating to public life were taken up. The reports show that one of the petitions made by the club and granted by the Commission for the erection of buildings for the protection of the sick and injured while waiting for trains at the more important stations on the line, has been a very grateful improvement. The visiting committee is one of the most active in the club. The entertainments have been large and varied, including several public receptions in honor of new arrivals. The club hopes to place its department work on a more secure basis, and several amendments to the by-laws will be made which will provide for a larger scope and more efficient organization.

The Las Cascadas club had a good attendance at the regular meeting, May 14. The social hour was in charge of the entertainment committee and the afternoon was spent in playing cards. Prizes were won by Mrs. Kaiser and Mrs. Hutton.

The Pedro Miguel Woman's Club had its social meeting on May 6, when a program in charge of the entertainment committee, Mrs. Mark White, chairman, was given. Features of the afternoon were games and music. Tea was also served.

The business meeting, May 15, settled all unfinished business in readiness for a short recess which the club has decided to take. The absence of the president and many of the prominent members making this seem desirable. The Library committee reported that the books have arrived and will be in circulation from the residence of the chairman, Mrs. Waters, until arrangements in regard to securing a permanent room for use of the club for a regular library and reading room can be made. Resolutions of regret were adopted on the illness of the Secretary, Mrs. H. W. Shick, who has been removed to Ancon hospital. Mrs. J. Frank Morley has been appointed to act as secretary in her place.

Saturday afternoon at the Empire club house the Ladies' Guild of St. Mary's Episcopal Church held a bazaar at which $16 were made for the church fund. The articles sold comprised cakes and other dainties, and also laundry bags, aprons and fancy work.

The Secretary of War and a number of the Commission officials attended the service at the Ancon Protestant chapel on May 10. The Ven. Archdeacon Bryan was assisted by Mr. J. P. Armstrong, of Empire. The music was rendered by the regular choir, assisted by Mr. P. T. Murphy of Cristobal.

Rev. J. L. Wise, Baptist clergyman of Gorgona, held the service on May 17. The Rt. Rev. A. W. Knight, D. D., Bishop of Cuba, has been appointed by the presiding Bishop as his representative in the care and supervision of the missions of the Protestant Episcopal church in the Canal Zone, Panama and Colon. Bishop Knight will make his first official visit this month, and is expected to preach at the ten o'clock service, at the Ancon Protestant chapel on May 30.

PERSONAL.

Mr. A. Bruce Minear, General Secretary of the Y. M. C. A. on the Isthmus, sailed on the *Esperanza* Saturday, May 16, for an eight weeks' vacation in the United States. He will marry Miss Nell Downer at Muscatine, Iowa, on June 25. On his return to the Isthmus he will be accompanied by Mrs. Minear, and they will reside at Culebra.

Lieut. Wm. C. Wise Jr., and family; Lieut. L. W. T. Waller, Jr., and Lieut. John Dixon, were passengers on the *Advance* which arrived at Cristobal on Saturday, May 16. They brought a detachment of fifty marines from the States and will be stationed with them at Camp Elliott.

Among the passengers on the *Esperanza*, which sailed from Cristobal on May 16, were Dr. C. E Phillips and family of Ancon Hospital, and Arthur L. Robinson, Electrical Engineer, of Culebra. Dr. Phillips and Mr. Robinson both have six weeks' leave of absence.

William Ralph Drexel, of Washington, D. C., and Miss Anna Mary O'Connor, daughter of Superintendent O'Connor of the Canal Zone schools, were married at the Hotel Tivoli, Saturday afternoon, by Rev. W. Waldo Weller of the Methodist Episcopal Church.

Obituary.

G. W. Fraser died at Ancon hospital, May 7, 1908, from tuberculosis. He was thirty years of age, had lived on the Isthmus three and a half years, and at the time of his last illness was employed as a foreman at Empire. He is survived by a wife who lives in Kingston, Jamaica.

John W. Brown, of Catonville, Md., died May 10, 1908, at Cristobal, from injuries received while at work on the dredge *Ancon* at the dry dock. He was sixty years old, and had lived on the Isthmus ten months, his quarters being at Gatun.

Erman St. Clair, a drill operator, was killed while at his work at San Pablo the night of May 14, by a pulley falling from the top of a drill and fracturing his skull. He was 29 years of age, had lived on the Isthmus since November 7, 1906, but had been at work on the Canal only a few days. A brother, living in Durango, Mexico, survives him.

In order to afford better protection for the bachelor quarters from mosquitoes, 5,000 cotton mosquito bars for use over beds have been ordered. Three thousand cuspidors have also been ordered for the bachelor quarters.

CANAL WORK FOR APRIL.

Monthly Report of the Chairman to the Secretary of War.

May 15, 1908.

The Honorable,
The Secretary of War.
Washington, D. C.

Sir: I have the honor to submit the following report of operations on the Isthmus for the month of April, 1908:

Department of Construction and Engineering.

CULEBRA DIVISION.

The total amount of material excavated in this division during the month was 1,242 574 cubic yards, a decrease of 52,631 cubic yards as compared with the amount excavated in March. Of this amount 1,190,156 cubic yards were removed from the Canal prism, and 52,418 cubic yards were taken from the Obispo Diversion.

For comparison with the work performed during the corresponding month of the previous year, the following table has been prepared:

Period.	Total amount of material excavated by steam shovels.	Classification of material: Rock.	Classification of material: Earth.	Av. No. of steam shovels working during month.	Wk'g days in m'th	Av. amount excavated per steam shovel per month	Av. amount excavated per steam shovel per day.
1907	*cu. yds.*	%	%			*cu. yds*	*cu. yds.*
April	877,380	56	44	44.12	26	19,884	765
1908							
April	1,239,694	62	38	41.28	25	30,031	1,201

Rainfall during month: 1907, 0.06 inches; 1908, 1.56 inches.

It will be seen from the above table that the total excavation by steam shovels in the Culebra Division during the month of April, 1908, was 41 per cent greater than the amount for the corresponding month in 1907, and that the average output per shovel per day was 57 per cent. greater.

The rainfall was light during both months under comparison, but was slightly greater in April, 1908, than in April, 1907.

The drilling during the month amounted to 263,722 lineal feet, and 296.8 tons of explosives were used.

The total amount of new track laid was 11.9 miles and 9.6 miles of old track were removed.

There was a decrease of 97 in the labor force, as compared with the month of March.

CHAGRES DIVISION.

The total amount of material excavated in this division during the month was 339,853 cubic yards, of which 329,483 cubic yards were taken from the Canal prism. The average output per shovel per day was 1,156 cubic yards.

The rainfall for the month at San Pablo was 3.39 inches.

There was a decrease of 175 in the labor force on this division as compared with the preceding month.

COLON DIVISION.

Four dredges worked on this division during the month, all operating in the prism of the Canal in Limon bay. The total output of the dredges amounted to 496,366 cubic yards.

Two steam shovels worked at the Mindi Hills during the month, excavating 67,436 cubic yards.

GATUN LOCKS.

The seven steam shovels working at the Lock site excavated a total of 225,467 cubic yards. Of this amount 29,358 cubic yards were taken from the site for the cableways.

PORTO BELLO.

The work at Porto Bello included excavation from the site for the water works dam, the laying of concrete in the dam, and clearing from the site for the reservoir. The laying of the pipe line for the water supply was practically completed during the month.

GATUN DAM AND SPILLWAY.

Five steam shovels worked throughout the month, excavating a total of 147,989 cubic yards. The work on the dam and spillway included, also, the driving of piles, drilling, the sinking of test pits, and considerable clearing on Gatun and Spillway islands.

LA BOCA DIVISION.

Three dredges worked on this division throughout the month, all operating in the Canal prism. The total excavation was 676,539 cubic yards.

At Cardenas Hill, 11,300 cubic yards of material were removed, all being used on track and levee work. About thirty acres of the Canal prism was cleared of brush and stumps.

MIRAFLORES LOCKS AND DAMS.

Examination of the sub-strata at the Miraflores lock and dam sites was continued, and some borings were made at the Pedro Miguel site. Excavation was continued at Miraflores, 92,261 cubic yards of earth being removed and placed in construction fills.

Various minor items of work were accomplished, including a dump for drainage purposes, the construction of a bridge across the Rio Grande near the south end of the lock site, and excavation on the spillway.

RELOCATION OF PANAMA RAILROAD.

Spur No. 16, leading to the south portal of Miraflores tunnel, was 50 per cent. completed at the end of the month. No work was done on any of the other temporary connection tracks.

During the month 35,640 cubic yards of material were excavated, and 229,838 cubic yards were placed in embankments.

At the end of the month all trestles for filling had been driven between Mindi Junction and Tiger Hill via the 1¼ per cent. line. Sixteen hundred lineal feet of trestle were driven from the Gamboa bridge north to a point opposite Gorgona.

Work was continued on the construction of Miraflores tunnel and various bridges and culverts. During the month 3,789 feet of permanent track were laid, making a total of 31,841 feet.

Two thousand and ninety-seven cubic yards of ballast was placed under the tracks north of Gatun.

The force of laborers engaged on the work of relocation averaged 1,250 men.

DIVISION OF MUNICIPAL ENGINEERING.

The usual work of this division in connection with the maintenance of waterworks, sewers and roads, was continued during the month. Work was commenced on various small jobs of new construction, and a number of items were completed. Estimates and drawings were made for proposed improvements at various points.

MECHANICAL DIVISION.

The usual work was performed by this division in connection with the installation of machinery in the shops, the erection and repair of equipment, and electric wiring and installations at various points. Miscellaneous new and repair work was done for other divisions and departments.

DIVISION OF BUILDING CONSTRUCTION.

During the month this division completed 38 items of new construction, including 7 hospital buildings, 1 fire engine house, 2 public markets, and a number of type houses. Repairs were made to 128 buildings, 2 buildings were given alterations and 13 old buildings were demolished.

DIVISION OF METEOROLOGY AND RIVER HYDRAULICS.

The usual observations and measurements were continued during the month.

The mean temperature for the month was 83 degrees at Ancon, 78 degrees at Bas Obispo and 80 degrees at Cristobal. At Ancon temperatures of 90 degrees and over were reported on 26 days of the month. The total evaporation was 5.921 inches at Ancon, 5.475 inches at Bas Obispo and 6 930 inches at Cristobal.

The April rainfall exceeded that for the corresponding month in 1907 at all stations along the Canal prism.

Department of Labor, Quarters and Subsistence.

There were imported during the month 116 European and 188 West Indian laborers. The excess of independent steerage immigration over emigration was 477. The actual working force on the last day of April, as compared with the last day of March, was as follows:

	March	April
Gold force	4,996	4 950
Colored laborers	15,149	15,802
European laborers	5,407	5,366

The situation with regard to quarters remained about the same as during the past few months. At the end of the month there were, at practically every point, applications on file which could not be filled, and at several places there were many such applications.

The total estimated loss in the subsistence operations for April amounted to $5,007.76, as against a corresponding estimated loss for March of $22.05. Of this loss, the Hotel Tivoli was responsible for $1,258.74; the line hotels for $3,079 60; European laborers' messes for $373.99; and the common laborers' kitchens for $295.43.

Department of Civil Administration.

COURTS.

One criminal case was disposed of in the Supreme Court during the month. In the Circuit Courts, 5 civil and 41 criminal cases were heard and disposed of; and in the District courts, 9 civil and 584 criminal cases were tried and settled.

REVENUES DEPARTMENT.

The usual business of this department was transacted, embracing all matters in connection with the postal service, lands, collection of customs, internal revenues, miscellaneous collections and the administration of estates.

Seventeen vessels entered, and the same

number cleared from the port of Ancon during the month, and the same number entered and cleared from the port of Cristobal.

POLICE DEPARTMENT.

Eight men were enlisted in the Canal Zone police force during the month of April, and 22 members were discharged, making a total force at the end of the month of 215 officers and men. The number of arrests was 591 as compared with 586 during the month of March. Thirteen convicts were committed to the penitentiary and 8 were released, 7 by reason of expiration of sentence, and one by pardon. At the end of the month 95 convicts remained in confinement.

Seven persons of undesirable character, of whom two were Americans, were deported from the Canal Zone during the month.

The coroner reported 8 deaths in the Canal Zone requiring his action. Of these deaths, 5 resulted from railroad accidents.

DIVISION OF PUBLIC WORKS.

The average daily consumption of water in Panama and Colon during April was 824,533 gallons, and 457,591 gallons, respectively, as compared with 765,839 gallons in Panama, and 430,869 gallons in Colon, during the month of March. A number of new connections were made in both cities.

Numerous complaints were received from the Health Officers of Panama and Colon, all of which were investigated and proper action taken to remedy the conditions complained of.

The revenues from the public markets aggregated $524.42 as compared with $575.92 for the month of March. The markets at Pedro Miguel and Tabernilla were completed.

FIRE DEPARTMENT.

Nine fires in the Canal Zone, and one in the city of Panama, were reported during the month. One of these fires occurred in bachelor quarters at Empire. No damage of consequence resulted from any of the fires in the Canal Zone. The fire in Panama destroyed 6 frame buildings on Central avenue opposite the Panama railroad passenger station.

DIVISION OF SCHOOLS.

The enrollment in the schools for white children was 533 as compared with 532 during March. In the colored schools, the enrollment was 1,329, a decrease of 35 as compared with the enrollment for the month of March.

Department of Sanitation.

[The substance of the report of this department was published in THE CANAL RECORD last week.]

Respectfully,

(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Sunday's rains so increased the volume of water in the Chagres river that the old French diversion channel at Gatun was inadequate to carry off the water as fast as it came down. The wall of rock that is the beginning of the dam at Gatun held the water from the old channel, and on Monday morning there was revealed the beginning of the lake at Gatun.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

The first anniversary of the opening of the Culebra club house, the first in the Canal Zone, is Thursday, May 21, and the event will be observed by keeping open house all day and special exercises afternoon and evening. In the afternoon the Women's club will entertain, and in the evening a smoker will be held at which a musical program and C. L. Chester's lecture on the Navy will be the set features. The report of the General Secretary of the Y. M. C. A. for April, as published in last week's CANAL RECORD, shows the strength of the men's clubs at the present time.

Mr. C. L. Chester began his series of lectures on Monday, May 18, at Empire, speaking on the Navy and illustrating his remarks with stereopticon views. Tuesday evening he spoke at Gorgona on the same subject, on Thursday evening he will repeat the lecture at the anniversary exercises at Culebra, and on Saturday evening at Cristobal. He will deliver a lecture on the Army on May 25, at Empire, on May 26 at Gorgona, on May 28 at Cristobal and on May 29 at Culebra. A lecture on Peru, Ecuador and Bolivia will be given June 1, at Empire; June 2, at Gorgona; June 4, at Cristobal, and June 5 at Culebra.

The reference books in the club houses, although much used, apparently satisfy their users, as no demand has made itself felt for new books of this class. Not so, however, with the books of fiction, as the requests for more and new ones are continuous and general. To satisfy, in part, this demand forty-eight new volumes have been placed on the shelves at the club houses.

GORGONA.

The cinder track at Gorgona Park, on which the Decoration Day Athletic Meet is to be held does not follow the orthodox ellipse, but is laid out as an oval, and offers a new and striking appearance. The straightaway, also lying tangent to the long side of the oval, is so situated that the start and progress of the sprints can be viewed as clearly as the finish which takes place opposite the grand stand. Jumping pits and shot putting circles are so placed that not one feature of the day can be missed.

Nothing has been left undone that could aid in making every event a success, and judging from comments of those interested, new Isthmian records will be made. This is true, especially, of the sprint races for the straightaway is absolutely level. Much interest is evinced.

CRISTOBAL.

The finals of the billiard tournament resulted as follows:

	Won	*Lost*
White	11	1
Bryan	9	2
Hylton	9	3
Turner	8	4

The following scores of 200 or over were made on the bowling alleys last week: Wolf, 236; Gilmartin, 232; Barte, 230; Vogel, 216; Murray, 213; DeGrummond, 208; King, 204; Cleary, 203; Thomas, 201.

May 24, Rev. W. W. Weller, Presiding Elder for the Methodist Church on the Isthmus, will speak to the Sunday Club, and on May 31, Mr. J. B. Reynolds, a member of the special commission appointed by President Roosevelt to investigate conditions on the Isthmus, will make an address.

EMPIRE.

Quite a group of the members enjoyed the "Smoker" given last Wednesday evening in honor of the basket ball team that won the first championship on the Isthmus, the bowling team of the league that won every prize offered and the winners of the pool and billiard tournaments. The program consisted of motion pictures, parallel bar exhibition by Messrs. Chisholm of Cristobal, Bath of Gorgona, and Schwartzbach, Gifford and Hutchinson of Empire, a basket ball game, awarding of prizes and speeches. Mr. R. M. Davies was toast master. At the smoker the secretary suggested the organizing of a cleaning and pressing club and the idea met with the approval of all present. The men in Empire who are interested are asked to notify J. F. McTyier.

CULEBRA.

J. F. McTyier, of Empire, will have charge of the musical service to be held at 3.30 p. m. Sunday, in the Culebra club house.

Club Notices.

Invitations have been issued for the reception and ball of the Empire Masonic Club, to be held at the Commission club house, Empire, on Friday, May 22. The customary arrangements have been completed, and an enjoyable evening is anticipated.

The Las Cascadas Masonic Club meets at 7.30 p. m. every Saturday night. All Master Masons are invited to attend.

All Knights of Columbus are requested to be present at a meeting to be held in the Hotel Central, Sunday, May 24, at 10.30 o'clock.

J. E. Donnelly, Butler Council No. 866.
C. P. Conlan, Toledo Council No. 386.
J. A. Daley, Spalding Council No. 417.

The Tivoli Club's regular dance will be given on Saturday evening, May 23.

White Teachers' Association.

The following program occupied the attention of the White Teachers' Association at the monthly meeting held at Ancon, on Saturday, May 16. There will be no more meetings of the Association during the present school year:

I. How to Best Teach Elementary Geography. Mrs. William E. Maxon.

II. Music and Drawing as an Aid to School Interests. Miss Grace Yarborough.

III. The Cultivation of the Child's Ethical Nature. Miss M. Emily Kyte.

IV. The Educational Value of Fable and Mythology. Miss Helen C. Danforth.

V. Question Box (each teacher to be prepared with a question).

MISS CATHARINE BAILEY.
MISS IDA ALTSTAETTER,
MISS FLORENCE O'CONNOR,
Committee.

Concert.

By the I. C. C. Band at San Pablo, C. Z., Sunday, May 24, at 3 p. m.

PROGRAM.

1 March	*Sheridan Sabres*	St. Clair
2 Medley	*Popular Songs*	Von Tilzer
3 Waltz	*Serenata*	Jaxone
4 Selection	*The Prince of Pilsen*	Luders
5 Flower song	*Hearts and Flowers*	Tobani
6 Characteristic dance	*On Our Honeymoon*	Harris
7 Selection	*George Washington, jr.*	Cohan
8 Popular ditties	a *Iola*	Johnson
	b *Honey Boy*	Von Tilzer
9 Overture	*Schauspiel*	Bach
10 March	*Officer of the Day*	Hall

OLIVER KIMBALL,
Director.

The next concert will be given at Gorgona, Saturday, May 30

To meet the increase in the water stored during the rainy season, the sides of the reservoirs are being cleaned of the vegetation that springs up as the water is drawn off during the dry season.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

April Work of Steam Shovel No. 202.

THE CANAL RECORD:

In the "Highest April Shovel Records" published in the issue of May 13, Shovel No. 202 did not receive credit for the full amount of material excavated.

Shovel No. 202 took out 39,516 cubic yards in the Pedro Miguel District as published; also 10,801 cubic yards in the Culebra District, making a total of 50,317 yards excavated, an average of 2,013 yards per day for the 25 working days. This shovel was making a comparatively light cut, the entire length being 2,750 feet. It made one move of three-quarters of a mile and 9,771 yards of the material excavated were loaded on a main line track where every loaded train passing down the cut delayed the shovel from five to ten minutes.

M. W. TENNY,
Asst. Engineer.

Paraiso, May 15, 1908.

"Quarters," May 1, 1908.

THE CANAL RECORD:

I shall be pleased to know, through the columns of your paper, the number of "quarters"—married and single—there are in the Canal Zone; the separate amounts, how many married and how many single.

INTERESTED.

Cristobal, May 9, 1908.

The Department of Labor, Quarters and Subsistence reported the division of "quarters" May 1, as follows:

MARRIED.

Gold employes	1,183 quarters
Colored employes	996 quarters
European employes	255 quarters
Total	2,434 quarters

BACHELOR.

Gold employes	2,166 rooms
Colored employes	425 rooms
European employes	165 rooms
Total	2,756 rooms

Aluminum or Silver Medals.

THE CANAL RECORD:

Relative to the material to be used in the medals contemplated for the employes who rendered two years satisfactory service in the construction of the Isthmian Canal, I wish to say that as few of us are left, it would not be very extravagant to have them made of some metal that would give them a neat and comely appearance, say something like aluminum or even silver. There is hardly a man who has served two years but has enough of the old French junk to exhibit as souvenirs without caring to carry a piece of scrap iron the size of a silver dollar, and it is my belief that any one entitled to receive this medal would cheerfully contribute a Panamanian dollar to have it cast from.

Will some of the other two-year-olds speak out in print?

ELIGIBLE.

Ancon, C. Z., May 12.

The main line of the sewer for the native town at Gorgona has been completed. This improvement is to be paid for from the revenues from local taxation.

OFFICIAL CIRCULARS.

Rourke Succeeds Bolich.

TO HEADS OF DEPARTMENTS AND DIVISIONS:

Mr L K Rourke, Assistant Division Engineer, Culebra Division, is hereby appointed Division Engineer, vice Mr. D. W. Bolich, resigned, and Mr. A. S. Zinn, Resident Engineer, Assistant to the Division Engineer and Resident Engineer, vice Mr. L K. Rourke, promoted.

(Sgd.) D. D. GAILLARD,
In Charge, Department
Excavation and Dredging.

Approved:
(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.
Culebra, May, 15, 1908.

Acting Electrical Engineer.

Office of the Superintendent of Motive
Power and Machinery,
Culebra, May 16, 1908.

TO ALL CONCERNED:

Effective May 16, 1908, Mr. S. G. Forbes, foreman of construction, will act as electrical engineer in charge of the electrical sub-division during the absence on leave of Mr. A. L. Robinson, electrical engineer. In this capacity Mr. Forbes will perform all the duties of the position of electrical engineer, and exercise the authority of same.

GEO. D. BROOKE,
Superintendent of Motive Power and Machinery, Isthmian Canal Commission and Panama Railroad.

Book of Rules.

ALL CONCERNED:

Notice is hereby given that each employe of the Transportation Departments of the Isthmian Canal Commission and the Panama Railroad Company is required to provide himself with a copy of the book of rules of the Panama Railroad Company, for the safe-keeping and return of which $1 U. S. Currency will be deducted from the pay of such employes.

Upon termination of service such employe will be paid the $1 withheld from his pay, upon presenting in good order the book of rules issued to him, to the Disbursing Officer of the I. C. C. in the case of the Commission employes, and to the Cashier of the P. R. R. in the case of employes of that Company.

This deduction will be made on the current roll of the month in which the book is issued, as in the case of Commissary books. For those employes who have already received a copy of the book, deduction will be made on the May rolls.

Books will be issued by the Disbursing Officer of the Isthmian Canal Commission, or the Cashier of the Panama Railroad Company, to timekeepers, the same as Commissary Books are now issued.

GEO. W. GOETHALS,
Chairman, Isthmian Canal Commission
President, Panama Railroad Company.
Culebra, May 2, 1908.

Abuse of Half-Rate Privilege.

HEADS OF DEPARTMENTS AND DIVISIONS:

Notwithstanding the fact that a number of employes have been severely disciplined for misuse of the half-rate privilege on the Panama railroad, accorded to employes of the Commission and their families, the abuse of this privilege has become so flagrant as to render it absolutely necessary to insist upon a strict observance of the rules embodied in my circular letter of September 6, 1907, governing the issuance of these requests, the fourth paragraph of which reads as follows:

"It is desired that the following procedure be adhered to as closely as possible in granting these requests: As soon as a book is issued to any official authorized to sign half-rates, his name will be stamped in the first blank space at the top. Upon request of an employe for half-rate he will be furnished one blank, which he will fill out, sign, and return to the official whose name is stamped thereon, for countersignature. *This official must have positive knowledge* that the persons for whom the half-rate is requested are entitled to same."

Any responsible employe may be designated to countersign these requests without obtaining formal authorization through this office, and the employe so designated will be held responsible for the proper issuance of all half-rates furnished him.

The practice of issuing these requests in blank to employes, to be filled out at their convenience must be stopped immediately, and the procedure outlined above must be followed in every instance.

Any abuse of this privilege in the future will be considered sufficient cause for *dismissal from the service.* Kindly furnish a copy of my circular letter of September 6, 1907, to every employe authorized to issue half rates.

GEO. W. GOETHALS,
Chairman.
Culebra, May 13, 1908.

Admission of Employes to Hospitals.

CIRCULAR NO. 174.

1. On and after May 15, employes of the Isthmian Canal Commission and Panama Railroad Company will be admitted for treatment in the hospitals of the Canal Zone only upon request made by a physician in the employ of the Sanitary Department or the official, superintendent, or general foreman under whom they are employed. Proper certificates have been printed and an initial supply will be furnished from the office of the Chief Sanitary Officer, and future supplies may be obtained on regular stationery requisition.

2. In sending sick employes to local physicians for treatment, form must always be properly filled in so as to give the physician the necessary information in case he wishes to send the employe to hospital.

3. Physicians will act as heretofore in emergency cases. The necessities of patients will always be given first consideration, and no man who is in urgent need of hospital care will be refused admission on account of this order.

GEO. W. GOETHALS,
Chairman.
Culebra, May 11, 1908.

Subsistence for Unmarried West Indian Laborers.

CIRCULAR NO. 173.

Effective June 1, 1908, all unmarried West Indians in the service or thereafter employed, will, at the close of each working day, be given an order on the Department of Labor, Quarters and Subsistence, for a day's subsistence of three meals, to be served in kitchens established for this purpose.

Foremen and timekeepers issuing these orders will be instructed to make a distinctive mark opposite the employe's name in the timebooks, every day for which a meal order has been issued, and a deduction of 30 cents gold will be made from the pay of employes for every meal order issued to them

On Saturdays and on days before holidays a sufficient number of meal orders will be issued to provide employes with subsistence until the close of the following working day, all of which will be carefully noted in timebooks

Foremen and timekeepers must not issue meal orders to men who, from the record of the timebooks, do not seem to have sufficient pay due them to pay for same, and they will be held accountable for all meal orders delivered to them for issue.

Stewards in charge of labor kitchens will issue camp checks to every employe reporting for the evening meal, and no one will be allowed to sleep in camps without such checks.

GEO. W. GOETHALS,
Chairman and Chief Engineer.
Culebra, May 9, 1908.

Timekeeping Instructions.

DEPARTMENT OF DISBURSEMENTS,
Empire, C. Z., May 11, 1908

SUPPLEMENT NO. 2 TO CIRCULAR NO. 1.

Effective at once, all time will be checked daily, as per instructions in time book, by the Foremen or by their assistants, provided such assistants are not taken from the class of laborers they are checking, in order that the time book will be an absolute record of the time put in by the men that are actually on the work.

Foremen will be held responsible for any irregularities.

(Sgd.) EDWARD J. WILLIAMS,
Disbursing Officer.

Approved:
(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

(This to be attached to Sheet 2 of Disbursing Officer's Circular No. 1)

SUNDAY TRAINS ON PANAMA RAILROAD

SUPPLEMENT No. 1 to TIME TABLE No. 1.

In effect Sunday, May 24, 1908 and effective on Sundays only thereafter.

SOUTH BOUND					MAIN LINE			NORTH BOUND					
No. 29	No 27	No. 25	No. 23	No. 21	Distance from Colon	S Stop F Flag Station	Distance from Panama.	No. 20	No. 22	No. 24	No. 26	No. 28	No. 30
Pass Express	Pass Local	Pass Express	Pass Express	Pass Local		STATIONS		Pass Local	Pass Local	Pass Express	Pass Local	Pass Local	Pass Express
Leave	Leave	Leave	Leave	Leave	Miles		Miles	Arrive	Arrive	Arrive	Arrive	Arrive	Arrive
P. M.	P M.	P M.	A. M.	A. M.				A M.	P. M.	P. M.	P M.	P. M.	P. M
7 00	4 00	1 00	10 00	6 45	00	† COLON	47 58	9 15	12 15	2 45	6 15	9 15	11 45
s 7 01	4 01	s 1 01	s 10 01	s 6 46	0 42	† Cristobal	47 16	s 9 13	s 12 12	s 2 43	s 6 12	s 9 12	s 11 43
7 04	f 4 05	1 04	10 04	f 6 50	1 90	Mount Hope	45 68	f 9 10	12 09	2 41	f 6 09	9 09	11 41
	f 4 11			f 6 56	4 52	† Mindi	43 06	f 9 02	12 03		f 6 03	9 03	
s 7 13	s 4 17	s 1 13	s 10 13	s 7 03	7 08	Gatun	40 50	s 8 55	s 11 58	s 2 31	s 5 58	s 8 58	s 11 31
7 14	4 18	1 14	10 14	7 04	7 20	† Gatun (cabin)	40 38	8 52	11 55	2 30	5 55	8 55	11 30
7 20	f 4 25	1 20	10 20	f 7 13	10 68	† Lion Hill	36 90	f 8 45	.11 49	2 25	f 5 49	8 49	11 25
7 25	f 4 31	1 25	10 25	f 7 19	12 75	Ahorca Lagarto	34 83	f 8 40	11 43	2 20	f 5 43	8 43	11 20
7 30	s 4 39	1 30	10 30	s 7 26	15 52	† Bohio	32 06	s 8 33	s 11 37	2 15	s 5 37	s 8 37	11 15
7 35	f 4 46	1 35	10 35	f 7 35	18 75	† Frijoles	28 83	f 8 25	11 27	2 09	f 5 27	8 27	11 09
s 7 41	s 4 54	s 1 41	s 10 41	s 7 43	21 62	Tabernilla	25 96	s 8 17	s 11 21	s 2 04	s 5 21	s 8 21	s 11 04
					21 86	† Tabernilla (cabin)	25 72						
					22 84	Barbacoas	24 74						
7 45	s 4 58	1 45	10 45	s 7 48	23 56	San Pablo	24 02	s 8 12	s 11 15	2 00	s 5 15	s 8 15	11 00
					24 00	† San Pablo (cabin)	23 58						
	f 5 00			f 7 50	24 57	Bailamonos	23 01	f 8 08			f 5 13		
7 50	s 5 05	1 50	10 50	s 7 55	26 02	† Mamei	21 56	s 8 05	s 11 10	1 55	s 5 10	s 8 10	10 55
					28 22	† Gorgona (cabin)	19 36						
s 7 56	s 5 13	s 1 56	s 10 56	s 8 05	28 53	† Gorgona	19 05	s 7 56	s 11 03	s 1 48	s 5 03	s 8 03	s 10 48
8 00	s 5 18	2 00	11 00	s 8 10	29 90	† Matachin	17 68	s 7 51	s 10 58	1 45	s 4 58	s 7 58	10 45
					30 70	† Bas Obispo (cabin)	16 88						
8 03	s 5 22	2 03	f 11 03	s 8 15	31 26	Bas Obispo	16 32	s 7 46	s 10 54	1 41	s 4 54	s 7 54	f 10 41
					31 98	† Bridge 52 (cabin)	15 60						
s 8 08	s 5 28	s 2 08	s 11 08	s 8 22	32 83	Las Cascadas	14 75	s 7 39	s 10 47	s 1 37	s 4 47	s 7 47	s 10 37
					33 49	† White House (cabin)	14 09						
s 8 12	s 5 35	s 2 12	s 11 12	s 8 28	35 18	† Empire	12 40	s 7 31	s 10 42	s 1 32	s 4 42	s 7 42	10 32
s 8 16	s 5 40	s 2 16	s 11 16	s 8 33	36 18	Culebra	11 40	s 7 25	s 10 36	s 1 28	s 4 36	s 7 36	s 10 28
8 17	5 41	2 17	11 17	8 34	36 27	† Culebra (cabin)	11 31	7 20	10 31	1 23	4 31	7 31	10 23
					39 04	Cucaracha	8 54						
	f 5 49			f 8 45	39 78	Paraiso	7 80	f 7 13	f 10 24		f 4 24		
s 8 28	s 5 53	s 2 28	s 11 28	s 8 50	40 72	Pedro Miguel	6 86	s 7 10	s 10 22	s 1 17	s 4 22	s 7 22	s 10 17
8 29	5 54	2 29	11 29	8 51	41 09	† Pedro Miguel (cabin)	6 49	7 05	10 20	1 15	4 20	7 20	10 15
8 32	s 5 58	2 32	11 32	s 8 55	42 08	† Miraflores	5 50	s 7 03	s 10 18	1 13	s 4 18	s 7 18	10 13
8 37	s 6 05	2 37	11 37	s 9 04	44 55	† Corozal	3 03	s 6 55	s 10 10	1 07	s 4 10	s 7 10	10 07
8 40	6 10	2 40	11 40	9 10	46 75	† La Boca Junct.	0 83	6 47	10 02	1 02	4 02	7 02	10 02
8 45	6 15	2 45	11 45	9 15	47 58	† PANAMA	00	6 45	10 00	1 00	4 00	7 00	10 00
P. M.	P. M.	P M.	A. M.	A. M.				A. M.	A. M.	P. M.	P. M.	P. M.	P. M.
Arrive	Arrive	Arrive	Arrive	Arrive				Leave	Leave	Leave	Leave	Leave	Leave

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON

Panama	P.R.R.	Thursday	May	14
Pr. Eitel Friedrich	H.-A.	Friday	May	15
Trent	R.-M.	Saturday	May	16
Allianca	P.R.R.	Tuesday	May	19
Prinz Aug. Wilh'lm	H.-A	Saturday	May	23
Finance	P R.R.	Monday	May	25
Prinz Sigismund	H.-A.	Friday	May	29
Tagus	R.-M.	Saturday	May	30

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON TO NEW YORK

Advance	P. R R.	Friday	May	22
Prinz Joachim	H.-A.	Tuesday	May	26
Panama	P.R.R.	Wednesday	May	27
Allianca	P R R.	Monday	June	1
Magdalena	R -M.	Tuesday	June	2
Finance	P.R.R	Saturday	June	6

FROM NEW ORLEANS TO COLON

Harry T. Inge	U F.C.	Saturday	May	16
Ellis	U.F.C.	Saturday	May	23

FROM COLON TO NEW ORLEANS

Harry T. Inge	U.F.C.	Tuesday	May	26

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Trent	R -M.	Tuesday	May	26
Tagus	R.-M.	Tuesday	June	9

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's Line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company despatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Antillian*, about May 16, and *Louisianian*, about May 23.

Misdirected Letters.

Division of Dead Letters,)
Ancon, Station A, May 16, 1908.)

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Alexander, W H
Bano, Chas H
Burkhatter, W E
Butler, T J
Cohen, Chas
Davis, John M
Davoren, Abraham F
Doran, Oliver F
Fassett, C V
Grissom, J T (2)
Gustavson, G E
Holz, Chas
Hopkins, D W
Hopkins, Geo
Lechler, A J
Lee, B T
Lozana, Theodore M
Maxwell, Miss J
Nation, G L (2)
Pollidore, Joseph J
Prescoe, Timothy (2)
Rabichaux, E J
Taylor, Louis N
Theiss, Harry E
Vogan, Geo H
Whittsley, H J
Wilson, Chas A (2)

Isthmian Baseball League.

Scores, May 17, 1908:

At Ancon Park: Ancon, 4; M. P. & M., 2 (ten innings).

At Empire Park: Empire, 11; Kangaroos, 6.

STANDING OF THE LEAGUE.

May 18, 1908:

	Played	*Won*	*Lost*	*Per cent*
Ancon	18	16	2	889
Empire	18	14	4	778
M. P. & M	19	14	5	737
Culebra	18	8	10	444
Kangaroos	20	8	12	400
Gorgona	19	4	15	211
Marines	18	1	17	055

To be played May 24, 1908:

At Ancon Park: M. P. & M. vs. Culebra
At Empire Park: Marines vs. Ancon
At Gorgona Park: Gorgona vs. Empire

Rainfall from May 1 to 16, 1908, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Maximum in one day.	Total.
Atlantic Slope.		
Porto Bello	2 18	10.23
Cristobal	3.62	13.79
Brazos Brook	3.51	12.58
Gatun	2.70	12.13
Bohio	3.06	10.75
Tabernilla	2.00	7.80
San Pablo	1.81	6.97
Central Section.		
Bas Obispo	1 51	7.92
Gamboa	1.88	8.49
Empire	1.98	9.68
Camacho Dam	2.24	10.86
Culebra	2.35	8.38
Rio Grande	2 84	10.60
Pacific Slope.		
Pedro Miguel	2 05	9.15
La Boca	3.81	6.46
Ancon	2.02	5.13
Upper Chagres.		
Alhajuela	2.09	9 71

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, MAY 27, 1908. No. 39

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Cost of Canal Plant.

In the tabulated statement of appropriations and expenditures for the work of Canal construction down to March 31, 1908, which was published in THE CANAL RECORD last week, the "cost of plant" was set down as $27,969,526 46. The distribution of this amount among various departments of the work is shown in the following table:

New buildings, (all departments)	$9,427,524.97
Rolling stock	6,415,100·72
Floating equipment	3,951,875 67
Excavating machinery	2,548,749 26
Shop, other machinery and tools	1,215,208 15
Rails, fastening and ties	1 841,745.62
Relocation of Panama railroad	1,104,701 56
Second main track, Panama railroad	765,380 17
Docks and wharves	484,462.16
Construction of electric light plant	151,772.58
Lands purchased	59,341.35
Corral equipment	3,664.25
Total	$27,969,526.46

Breakwater to Naos Island.

A plan has been approved for the construction of a breakwater from East La Boca to Naos Island, at the Pacific entrance to the Canal, and the work is now under way.

The present dump at East La Boca will form the shore end of the breakwater. The proposed line runs from a point at the southeast end of the present trestle, opposite East La Boca, in a straight line to the island. It will be about 2,900 feet east of, and nearly parallel to, the axis of the Canal prism. It will be a trifle over two miles long (10,700 feet) and will vary from 26 feet to 51 feet in height, the maximum height being at the points of intersection with the old French dredged channel and the natural channel near Naos Island, a distance of about a quarter of a mile. The breakwater will be fifty feet wide at the top, which can easily be increased if found necessary.

It is estimated that about 2,500,000 cubic yards of rock will be needed to make the fill, all of which will be brought from the Culebra cut. Nothing but rock will be used.

The breakwater will be constructed for a two-fold purpose; First, to furnish an economical dump for the material from the Culebra Cut, and, Second, to ensure a quiet harbor at La Boca. It will also divert cross currents that would fill up the dredged channel of the Canal prism with the soft material from the shallow harbor of Panama.

Feeding West Indian Bachelors.

Arrangements have been made by the Department of Labor, Quarters and Subsistence, for feeding all of the unmarried West Indian laborers in the employ of the Commission after June 1, in accordance with the provisions of Circular 173, issued May 9, published in THE CANAL RECORD of May 20. This course has been determined upon because more than a year's experience shows that the men who are fed at the mess kitchens are healthier and do much better work than those who provide food for themselves. It has been found that many of the West Indian laborers are so frugal or careless that they actually deny themselves the food necessary to sustain themselves at the highest point of efficiency in their arduous work. To protect them from this, is the object of requiring them to get their food at the mess kitchens.

The mess kitchens for common laborers were established February 1, 1907, and at the same time the order went into effect fixing the pay of laborers who got their meals at the kitchens at 13⅓ cents an hour, silver, and check for three meals. February 6, 1907, meals were served at the kitchens to 6,282 men, and this number ran up until, for several weeks, practically seven thousand unattached West Indian laborers were fed. Gradually the number fell until only 2,966 were being fed at the mess kitchens for common laborers, May 1, 1908. It is estimated that the quantity of supplies needed at the West Indian mess kitchens after June 1 will be at least double the amount now required. May 1, 1908, there were 8,578 unmarried West Indian laborers in the service and arrangements have been made to feed 10,000 men at the 34 kitchens maintained for laborers of this class. The mess kitchen is a building fitted up with a range, refrigerator, and all appliances for the quick and cleanly preparation and handling of food. It is run by a steward who is assisted by a cook and servants in number proportioned to the number of meals to be served. The meals served in April varied from 392 at the Mamei kitchen to 11,127 at the two kitchens in Cristobal. A long counter stretches across the front of the building, and at meal time the men file before this counter, hand their checks to the steward, and get their food in pails or dishes supplied by themselves. This food they eat in their quarters or simply sit down with it along the road, under a a nearby house, or in some convenient, shady place. The following is a sample of a day's mess, the quantity of a ration being in general greater than is used:

Breakfast, 5 to 5.30 a. m.—Bread, corn meal porridge, coffee.

Luncheon, 11.30 to 12 p. m.—Bread, beef stew with vegetables, beans and rice, potatoes, bread, tea, dessert.

Dinner, 5 to 6 p. m.—Bread, bean soup with doughboys, peeled potatoes, roast beef, rice and beans, coffee, dessert.

A barrel of filtered water stands outside each kitchen. The meat is American dressed meat held in cold storage and delivered from a refrigerator car each morning. All the food is good and the service is clean. A charge of 30 cents, gold, for three meals a day will be deducted from the pay of 20 cents, silver, an hour, and laborers who do not take meals at the mess kitchens will not be allowed to sleep in Commission barracks.

Sea-Going Tugs Re-named.

The name *Cocoli* has been given to the sea-going tug *Katherine Moran* and the name *La Boca* to the *E. G. Reynolds*. These are the two tugs that made the trip from the States, around the Horn to La Boca under their own steam. The *Katherine Moran* arrived at La Boca on January 9, and has been in constant service until a few weeks ago when she was thoroughly overhauled and repainted with the standard Commission colors—gray and tan. The name *Cocoli*, is that of a tributary of the Rio Grande that flows into the latter stream at the Miraflores lock site. The *E. G. Reynolds* was overhauled and repainted shortly after her arrival on February 23.

Corrals at Cristobal and Colon.

Work has begun on a corral which will be the general stable for Colon, and in a few days a 16-inch dredge will be set at work filling some low land on which a similar corral will be built for Cristobal. As soon as the Colon corral is ready for use, the horses now housed in various places about the village, and in the unsanitary corral on 9th street beyond "G" street, will be transferred to it, thus doing away with stables near to dwellings, and by collecting the horses in a central corral insuring cleanliness in their keep.

The Colon corral is being built by the Panama Railroad Company on the filled-in ground between 10th and 13th streets east of "E" street or Railway avenue, and will occupy three half-blocks. It will be divided into two parts by 11th street—the Municipal Stables and the barns and stock-yards of the Railroad Company. In the Municipal Stables there will be room for 261 horses and their equipage, sheds for 88

NOTES OF PROGRESS.

(Continued)

coaches, and two yards for carts. With the cost of filling in the site $18,000 will be spent on these stables, and they can be enlarged fifty per cent. by extending the filled-in section at a cost of $2,500.

The Municipal Stables will be composed of eight unit barns, each 140 feet long and 24 feet wide and separated from the others by a Macadam roadway 13½ feet wide. In the front of each barn will be a room 18 by 24 feet, where each horse owner will be given a locker in which to store feed. From this feed-room a passageway 6 feet wide will run, between two rows of 16 stalls, 72 feet back to the coach sheds. The stalls will be 4 feet 6 inches wide and 9 feet long. They will face the feed passageway and be entered from the Macadam roadway in the rear.

The coach sheds will be 50 by 12 feet and like the stalls will be entered from the Macadam roadways. Back of five rows of stalls will be a cart yard 50 by 112 feet. Thus each barn will consist of a feed-locker room, stalls separated by a feed passageway, and coach sheds, except the barns back of which a cart yard will take the place of the coach sheds. The floors of the stalls will be laid on concrete and will slope towards a concrete gutter into which the rain from the roofs and the roadways will also drain. Back of the main barns and separated from them by a roadway 20 feet broad, will be a blacksmith shop 50 by 100 feet and a cart yard 50 by 200 feet.

Only twenty stalls are provided in the Railroad Company's barn, but space is left for any needed enlargement. This barn will be 30 feet wide and 65 feet long. Back of it will be a corral 75 by 102 feet. South of the barn and also fronting on "E" street will be the stock yards, made up of four pens 30 by 60 feet, and capable of accommodating 24 car loads of stock. This location was chosen for the stockyards because it is convenient to the railroad, and to the roads running to the slaughter house and to the grazing grounds at Mt. Hope. The Railroad Company's stables will cost $4,000 and the stock yards $3,000.

The Cristobal corral will be located on the south side of the Fox river on the road leading to the Mt Hope Store, and will occupy a space 600 by 200 feet. It will include a warehouse for the storage of feed, hospital stable, blacksmith and horseshoeing shop, wagonmakers and paint shop, carriage and wagon sheds, and stalls for horses. To bring this site to a proper level above the flat-land ten thousand cubic yards of dirt will be pumped from Fox river. The time consumed in the filling will be about fifteen days.

Six steel, rock barges, knocked down, which arrived on the *Indianapolis* from Newport News, April 26, have been shipped to La Boca where they will be put together. They will be used on the Pedro Miguel and Miraflores locks work.

Between March 6 and May 26 there have been delivered on the Isthmus 4,732.000 pounds of dynamite and 2,000 pounds of black blasting powder. In one shipment the *Kiora* brought from Bridgetown 800,000 pounds of 60 per cent. dynamite and 325,000 pounds of 45 per cent. dynamite.

PERFORMANCE OF STEAM SHOVELS

Monthly Records in the Seven Divisions.

The subjoined tables show the monthly records of steam shovel work in the seven Divisions of Canal Excavation since American occupation.

CULEBRA.

Period.	Average number of steam shovels at work.	Number of working days in month.	Output per shovel CUBIC YARDS Per day.	 Per month.	Rainfall—Inches. Empire.	 Culebra.	Maximum temperature in sun at Empire (degrees Fahrenheit).
1906—							
January	12.83	26	363	9,430	1.28	1,19	.....
February	12.48	23	587	13,494	0.57	0.64	......
March	12.37	27	716	19,335	0.45	1.34	......
April	12.33	24	720	17,289	11.42	8.43	......
May	12.41	27	581	15,684	7.54	7.25	......
June	14.81	26	539	14,026	6.92	8.94	123
July	16.64	25	378	9,441	14.61	20.26	127
August	16.93	27	536	14,461	11.84	12.97	132
September	21.33	24	568	13,664	7.41	6.22	130
October	22.67	27	532	14,373	3.97	8.46	128
November	20.46	24	459	10,833	21.05	19.19	120
December	22.68	25	491	12,267	8.15	9.09	108
1907—							
January	31.04	26	702	18,248	0.08	0.00	104
February	39.87	23	674	15,966	0.13	0.49	108
March	43.88	25	741	18,530	0.16	0.08	105
April	44.12	26	765	19,884	0.09	0.04	110
May	31.70	26	833	21,674	6.22	7.45	118
June	38.28	25	651	16,266	13.53	14.74	118
July	43.38	26	680	17,670	9.85	9.42	118
August	39.70	27	729	19,680	11.28	11.81	120
September	38.50	24	811	19,468	10.86	11.38	123
October	37.63	27	813	21,963	15.44	15.27	123
November	41.88	24	784	18,818	10.40	6.91	123
December	42.72	25	965	24,113	1.47	2.30	124
1908—							
January	43.42	26	1,084	28,177	0.75	0 91	125
February	43 67	24	1,186	28,475	0 00	0.01	124
March	42.19	26	1,171	30,451	0.41	0.13	125
April	41 28	25	1,202	30,031	1.36	1,67	127

GATUN LOCKS.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
Aug	3.70	27	784	21.176	16.37
Sept	4.12	24	884	21,219	8.03
Oct	5.00	27	1,013	27,355	19.27
Nov	5 00	24	1,014	24,327	14.27
Dec	5.00	25	1,286	32,159	5 53
1908—					
Jan	5 72	26	1,302	33,840	3.18
Feb	6.01	24	1,222	29,333	1 29
Mar	7.00	26	1,206	31.366	2 81
Apr	7 00	25	1,288	32,210	1.47

GATUN SPILLWAY.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
July	1.33	26	423	10,998	11.12
Aug.	2 00	27	498	13,433	16 37
Sept	2 00	24	757	18,158	8 03
Oct	2.00	27	745	20,118	19.27
Nov	2.00	24	854	20,494	14,27
Dec	2.00	25	1,395	34,878	5 53
1908—					
Jan	3.00	26	1,264	32.863	3 18
Feb	3.75	24	1.183	28,402	1 29
Mar	4.54	26	1,311	34.149	2.81
Apr	5.00	25	1,184	29 598	1.47

MIRAFLORES LOCKS.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1908—					
Mar	3.5	26	786	19,418	0 00
Apr	4.5	25	820	20,502	0 76

CHAGRES.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
Aug	0 15	27	716	19,333	12 20
Sept	0 92	24	976	23,420	14.71
Oct	2.22	27	428	11,544	13.62
Nov	3 00	24	612	14,681	9 85
Dec	6.12	25	630	15,756	2.26
1908—					
Jan	8.11	26	797	20 720	0.20
Feb	10 33	24	798	19,144	0.11
Mar	11.47	26	1,082	28,094	0 41
Apr	11 76	25	1,121	28,018	1 81

COLON.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
July	1	13	56	731	11.12
Aug	2	27	283	7.629	16.37
Sept	2	24	601	14,419	8,03
Oct	2	27	761	20,539	19 27
Nov	2	24	833	20.002	14 27
Dec	2	25	939	23,473	5 53
1908—					
Jan	2	26	1,208	31.418	3.18
Feb	2	24	1,368	32,816	1 29
Mar	2	26	1,574	40.925	2 81
Apr	2	25	1,349	33.718	1.47

LA BOCA DIVISION.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1908—					
Mar	1	26	476	12,360	0.00
Apr	1	25	452	11,300	0 76

The grand total of all Divisions for the month of April, 1908, is:

Average number of shovels at work, 72.54.

Average output per shovel per day, 1,165 cubic yards.

Average output per shovel per month, 29,137 cubic yards.

The working day for steam shovels is eight hours.

Fifteen shipments of piles, numbering in all 29,127, were received by the Division of Material and Supplies between July 1, 1907 and May 15, 1908. Only 3,530 of these remain in the stores. Between April 11, 1907 and May 8, 1908, 585,506 railroad cross ties, and 28,639 switch ties were received.

NEW QUARANTINE STATION.

Comfortable Detention Quarters and Hospitals.

Work on the Culebra Island Quarantine Station for the ports of Ancon and Panama is practically finished although, owing to a lack of docking facilities, it will be several weeks before the present station at La Folie Dingler, La Boca, is deserted for the new quarters. The old station has been occupied since January, 1905, as a place of detention for passengers coming from ports against which quarantine has been declared, although persons actually ill have been transferred to Ancon Hospital for treatment. The last case was that of a priest from Guayaquil three months ago who was treated for yellow fever and recovered.

The location of Culebra Island is peculiarly suitable for a quarantine station as it is two miles from the mainland and thoroughly isolated. Roughly, it is elliptical in shape and its greatest dimensions are 1,000 feet by 400 feet. At the highest point and about the center of the island is a fresh water distributing tank of 8,000 gallons capacity into which water collected from the buildings during the rainy season and stored in two 50,000-gallon tanks is pumped as needed. For the sewage system, fire protection, cleaning, and some toilets, salt water will be supplied from the pumping station and from a 50,000-gallon storage tank located on a contiguous island. Not the least difficult problem solved in building the station was this of the water supply. It is believed the fresh water storage will be sufficient to last through the dry season, and if it is not, it will be supplemented by water taken over from the mainland.

The water and sewage systems, a dock yet to be completed, at which boats can tie up at any stage of the tide, and ten frame buildings in the Commission style are the principal structural features of the establishment. Near the shore, about the center of the island and easily accessible by a system of walks, is the residence of the quarantine officer. Back of it is the building to be used as an office, custodian's quarters and storeroom.

A detention house for cabin passengers is the largest building, being 92 by 48 feet and two stories high, with a kitchen and storeroom 21 by 32 feet attached. On the first floor are a dining room, social room, and eight bed rooms, while on the second floor are ten bed rooms. Each bed room will accommodate four persons comfortably, making a capacity of 72 persons with room for 100 if crowding becomes necessary. A veranda runs around the building.

"Steerage Barracks" is the designation of the detention house for steerage passengers. It is two stories high and 66 feet long and 58 feet deep, not including the kitchen and dining room which are in an attached building. Each floor consists of one large hall fitted with standee bunks, 156 in all. On the second floor is a ward for women. This building is also surrounded with porches.

Built out over the water 75 feet from shore, so that even at low tide the rocks beneath it are not bare, making it difficult for rats with their disease-bearing fleas to reach the island, is the isolation hospital for plague and smallpox. It is a one-story building of two rooms, each 14 by 16 feet, and will accommodate eight persons without crowding, or twelve if necessary. The building has a broad veranda, and a bridge connects it with the island.

Also isolated from the island, but with the rocks beneath it bare at low tide, is the yellow fever hospital, a one-story building 41 feet square. It has four rooms and porches, and is intended to house 16 people without crowding, and 20 if occasion demands.

The other buildings comprise quarters for the medical officer, Dr. Fleetwood Gruver, and family, custodian quarters and storeroom, attendants' quarters, laundry and laboratory. The custodian's quarters, office, and storeroom are in a building 45 by 31 feet, two stories high, and containing two rooms on each floor. On the first floor are the office and storeroom and on the second the custodian's rooms. A two-story building of twelve rooms, each 12 by 15 feet, is set apart for the quarters of attendants and other help at the station. The laboratory is a one-story, one-room building 19 by 16 feet. The laundry is likewise a one-story building, 28 by 16 feet. It contains eight tubs.

In placing the buildings care has been taken to leave enough space between them to make enlarging any or all of them a simple and inexpensive matter. Without crowding, each building can be doubled in capacity, and, should further extension become necessary, buildings can be erected on Naos Island which could be connected by bridge with Culebra Island at small expense. Although each building is set apart for a special purpose there is nothing about the construction that prevents its being pressed into service in emergency. For instance, it is contemplated that half of the second story of the attendants' quarters will be used for any white women that may be taken from the steerage of a quarantined ship.

Premature Explosion.

A premature explosion of twenty-six tons of dynamite, caused by lightning, on the afternoon of May 22, at Caimito Mulato, in the Chagres Division, resulted in the death of two Americans, Clifford J. Coggon, levelman, and J. P. Roche, powderman. Injuries were inflicted upon two other employes, a Frenchman named Fritz Marti, whose leg was broken, and a colored laborer who was hit by a piece of rock but not seriously injured.

The charge was ready to be fired as soon as the men stopped work at five o'clock. The wires had not been connected with the electric battery, and during a thunder storm, lightning affected the wires causing the explosion. Several hundred men were in the immediate vicinity and it was very remarkable that there were so few casualties, although there were many narrow escapes.

Sunday Express Trains.

The officials of the Panama Railroad Company have received numerous requests, and at unseemly hours, from people along the line, to have the Sunday express trains stop for passengers at other than the regular stations. They wish to announce, that, owing to the conditions under which these trains are operated, and in order to have them run on time, it will be absolutely impossible to have the express trains on Sunday stop at any station not scheduled as a regular stop.

They wish to announce, also, that no permits will be granted to women to ride on freight trains, and that it will be useless to ask for them in the future.

Coffee Shipments on the Isthmus.

The coffee shipments over the Panama railroad for the period January 1, 1908, to April 30, 1908, show a decided increase over the shipments for a similar period of the preceding year. For the calendar year ending December 31, 1907, there were 595,257 bags of coffee handled by the Panama railroad, against 494,929 bags during 1906, an increase of 20 per cent.; 329,082 bags were delivered from January 1 to April 30, 1907, by various steamship lines to the Panama Railroad Company at La Boca for transportation across the Isthmus, and 516,435 bags during the same months in 1908, an increase of 57 per cent.

The principal ports from which the coffee originates are: San Benito, Mexico; Ocos, Champerico, and San Jose de Guatemala, Guatemala; Acajutla, La Libertad, and La Union, Salvador; Amapala, Honduras; Corinto, Nicaragua, and Punta Arenas, Costa Rico. Not all the coffee shipped from these ports, however, passes over the Panama railroad, as a portion of the shipments from Mexican and Central American ports are forwarded via the Straits of Magellan, and considerable from the Guatemalan ports, that formerly was forwarded to Europe via the Isthmus is now being handled by the Guatemala Northern Railroad, recently completed, from Guatemala City to Puerto Barrios on the Atlantic coast.

The ports of Champerico, San Jose de Guatemala, and Acajutla, produce about 70 per cent. of the coffee forwarded to Europe via the Isthmus, and about 40 per cent. of the coffee produced by the above-named ports is sent via the Straits of Magellan. Only 25 per cent. of the coffee originating in Mexico and Central America is forwarded to the United States, 5 per cent. being sent to New York and 20 per cent. to San Francisco. Europe receives, via Panama, 46 per cent. of the coffee output of the above-named places, and via the Straits of Magellan, 29 per cent.

Supply of Track Men Expected.

Most of the dumps of the Culebra Division at the present time are short of track men to shift tracks on the dumps and keep them in condition during the rainy weather. A large number of men for this purpose are expected soon, and after their arrival no further difficulty is anticipated in keeping the unloading tracks in condition.

Sunday Schedule for Decoration Day.

The schedule of passenger trains on the Panama railroad on Saturday, May 30, (Decoration Day), will be the same as the schedule for Sunday trains as published in THE CANAL RECORD of May 20.

A French Negro, Joseph Ogia, was captured while stealing from a room in Bachelor Quarters No. 30, at Ancon, Sunday morning. A charge of burglary in the first degree has been lodged against him and he is held over for the Circuit Court.

SOCIAL LIFE OF THE ZONE.

Secretary Taft's Cordial Approval of the Women's Clubs.

The following letter from the Secretary of War was received in response to an invitation sent by the secretary of the Ancon Woman's Club:

Culebra, C. Z., May 10, 1908.

My dear Mrs. Jewett: I have your kind note of May 7, in which you desire to tender me a reception on behalf of the Ancon Woman's Club. I should be very much delighted to meet the members of your club, and to express, by my presence, my interest in the work which they are doing. The matter of the recreation for the men and women and children who are in the Zone for the construction of the Canal is of the highest importance, because it affects directly the efficiency of those who are in the public service, and who are engaged in this great enterprise upon which the Government is spending so much money, and in which the American public has such an intense interest. I have no doubt that strong arguments could be made to show that we are spending more money in the direction of the comfort of the employes than is justified, but I believe that to be a narrow view.

It is most gratifying to me to return each year, as I have now for four years, to find conditions improved each year, both with respect to construction and organization and the comfort of employes. It seems to me that I can see in my last visit that the communities are settling down to be American communities here, and to acquire more an appearance of American home life than they ever had before.

It is impossible for me to accept your kind invitation to attend a reception. I have studiously refrained from accepting any entertainment of any sort since I have been on the Isthmus. My time has been so much occupied in the work which I came to do that it has been impossible for me to accept social attention.

Very sincerely yours,
(Sgd) WM. H. TAFT.

CLUB MEETINGS OF THE WEEK.

An interesting entertainment was given by the Culebra Woman's Club on the afternoon of May 21, when an address on "Isthmian Fruits, their Nature and Variety" was made by Mr. Henry F. Schultz, horticulturist of the Isthmian Canal Commission. The occasion had special interest as it was the first anniversary of the opening of the Commission club house in Culebra, the first in the Canal Zone. It was due to the courtesy of the managers of the club house that the Woman's Club was able to hold its meeting on this special afternoon, and in return for this, and many other courtesies which have been shown to them during the year, the club turned over the interesting display of native fruits, with which Mr. Schultz illustrated his address, to the members of the Y. M. C. A. and nothing was allowed to be disturbed until evening when the fruits were brought downstairs and sold at auction. Mr. Hertz acted as auctioneer, and a very satisfactory addition was made to the club treasury. In addition a luncheon was furnished to the bachelors by the members of the Woman's Club.

In honor of the occasion, flags were displayed throughout the building. The program was in charge of the entertainment committee, Mrs. Sumner Coolidge, chairman. Invitations had been sent to the affiliated clubs throughout the Zone, and there was a large attendance, among those present being Mrs. Lorin C. Collins, president of the Cristobal Woman's Club, and Mrs. E. S. Calvit, president of the Gorgona club. The meeting was called to order by the president of the Culebra club, Mrs. E. M. Pullen, who made a short address of welcome to the visitors and introduced the speaker of the day. Songs by Dr. Coolidge closed the program, after which fruit salad and a drink composed of native fruits were served and the guests enjoyed a social hour.

The club will meet for the last time during the present season on May 29, for the purpose of finishing up current business and making preparations for the work of the coming year, after which it will take a recess for the summer.

The Ancon Woman's Club held its social meeting in the ball room of the Hotel Tivoli on May 20, when a program in charge of the educational department was given. Several papers were read on various topics of interest, "A Cure for an Old Disease" was a paper which dealt with the subject of the prevention and cure of tuberculosis and the unique method of circulating information on this important matter by having simple rules printed on the backs of transfer car tickets, which fall into the hands of thousands of citizens of the United States. Of interest to those who keep up with the work here was a paper on the project to build a canal across the Alps and make a waterway from the Mediterranean to the Baltic. A violin number was given by Miss LeMay with Mrs. Ruggles at the piano. The resignation of the president, Mrs. J. M. Maguire, was accepted with resolutions of regret. Tea was served and a social half hour was enjoyed by the members present. An invitation was given to the educational department to meet at the residence of Mrs. Charles Boxer, Ancon, on Wednesday, May 27. These meetings on the alternate Wednesdays are increasing in interest and attendance and are becoming an active feature of club life. The next meeting of the club, on June 3, will be a business session.

The Empire Woman's Club held its annual meeting with election of officers, May 21, and the following officers were elected: Mrs. F. W. Miracle, president; Mrs. G. G. Burnett, vice-president; Mrs. E. H. Ash, secretary, Mrs. A. S. Zinn, treasurer. The time of meeting was changed from Thursday to Tuesday afternoon.

The Paraiso Woman's Club gave a dance and card party on Saturday evening, May 16, which was well attended. The hall was decorated and refreshments were served. Tables were provided for sixteen. The club held its last business meeting May 21. The regular recess will continue until September.

At a recent meeting of the Culebra Union League, Mr. Wm. M. Devine was elected organist for the I. C. C. chapel at Culebra, and a member of the Council.

The American four-masted schooner *Sehome* with a cargo of 1,500,000 ft. B. M lumber for the Commission, arrived at La Boca on May 24.

PERSONAL.

Mr. William Archer, the eminent dramatic critic and author, of London, made a short visit to the Isthmus on Sunday and Monday, May 24 and 25, studying social and other conditions relating to the Canal with a view to the possible publication of some magazine articles on the subject.

Judge and Mrs. Thomas E Brown, jr., of Cristobal, sailed on the *Panama*, May 27, for a six weeks visit in the States.

Dr. Sumner Coolidge, district physician at Culebra, accompanied by his family, will sail on the *Allianca* on June 1, for a visit of six weeks in the States.

Among the passengers on the *Panama*, which arrived at Cristobal on May 20, were: Mr. LeRoy Park, Mrs. Richard Reid Rogers and daughter, and Dr. and Mrs. H. H. Lane of Colon hospital.

Among the passengers that sailed for New York on the *Advance* on May 22, were: W. B. Ruggles, Resident Engineer at La Boca; S. J. Kennedy and wife of Empire, and J. M. Maguire and family of Ancon.

Among the passengers returning to the Isthmus on the *Allianca* on May 25 were: Judge R. C Goodale and family of Gorgona, M. C. Gay and wife of Empire, and Malcolm Elliott and wife of Ancon.

Obituary.

Clifford J. Coggon was killed by a premature blast of dynamite at Caimito Mulato about 1 45 o'clock in the afternoon of May 22. He was 24 years old, and had been on the Isthmus since July 25, 1907, residing in San Pablo. Among his surviving relatives is his father, Robert Coggon of Castile, N. Y. Funeral services in his memory will be held at the Ancon Protestant chapel, next Sunday afternoon at 3 o'clock.

In the explosion in which Mr. Coggon lost his life, Joseph P Roche was also killed. Mr. Roche was 34 years of age, and had lived on the Isthmus since July 25, 1907, his place of residence at the time of his death being Caimito Mulato. Among his surviving relatives are a brother living in Ireland and an uncle living in Brooklyn, N. Y.

Club Notices.

On Saturday, May 30, at 2 p. m. there will be a meeting of Masons at the Hotel Tivoli for the purpose of completing the organization of the Masonic club. Judge H. A. Gudger, who is Past Grand Master of North Carolina, will preside and deliver an address. The club will then adjourn to the cemetery to distribute flowers.

The Kangaroos will hold funeral services over the body of Geo. W. Frazer, at Ancon Protestant chapel, on Sunday, May 31, at 3 p. m. All Kangaroos are requested to attend.

Pier No. 11 of the Panama Railroad Company at Cristobal has been enclosed with a fence, and on sailing days no one will be allowed on the dock unless he presents a pass which may be procured at the ticket office. A policeman will be stationed at the gang-plank of the ship after 1 o'clock and no one but passengers will be allowed to go aboard the ship from that hour until sailing time without a special pass signed by the General Manager.

COMMISSION BUILDINGS.

VI.

The Santo Tomas Hospital.

By P. O. Wright, Jr. Architect.

The Santo Tomas hospital, located in the city of Panama, consists of a group of buildings erected and repaired by the Commission for the care of the indigent sick of the Republic of Panama, and other persons not connected with the Canal work. It was established for the purpose of relieving the Commission hospitals of the care of such persons, and is governed by a Board of five members, two appointed by the Commission and three by the Panamanian Government. Of those appointed by the Commission, the Chief Sanitary Officer is President of the Board and the Superintendent in charge is Dr. P. de Obarrio. The secretary, treasurer and a physician are the Panamanian representatives.

The authority for the establishment of this hospital is found in the "Acuerdo-Taft" or "Taft Agreement" of December 3, 1904, although Santo Tomas was not mentioned therein. By subsequent arrangements, the care of the lepers and insane persons mentioned in the agreement has been provided for in separate settlements. In consideration of certain changes in the tariff of the Republic, mail privileges, dockage, custom service, and a number of minor concessions, the United States agreed to:

> Construct, maintain and conduct a hospital or hospitals either in the Canal Zone or in the territory of the Republic, at its option, for the treatment of persons insane or afflicted with the disease of leprosy, and the indigent sick, and the United States will accept for treatment therein such persons of said classes as the Republic may report; but this order shall not be operative, unless, first, the Republic shall furnish without cost the requisite land for said purposes if the United States shall locate such hospital or hospitals in the territory of the Republic; and, second, unless the Republic shall contribute and pay to the United States a reasonable daily per capita charge in respect of each patient entering upon the request of the Republic, to be fixed by the Secretary of War of the United States.

The charge was fixed at 30 cents, gold, per day.

At a meeting of the Commission, held October 4, 1905, the following order of the Governor of the Canal Zone relating to the renovation of Santo Tomas hospital was ratified:

> An emergency exists for additional hospital accommodations on the Isthmus of Panama and the Chief Sanitary Officer of the Government of the Canal Zone recommends that the existing structure of the Santo Tomas hospital in the city of Panama be repaired. enlarged and equipped in such manner as to make said hospital capable of adequately accommodating three hundred patients, and thereafter operated and maintained at that standard, as a hospital for the inhabitants of the Republic of Panama, foreign seamen, strangers, etc , thereby relieving Ancon and Colon hospitals of the large number of such patients constantly under treatment at said institutions, and making it possible to devote said hospitals exclusively to the necessities of employes of the Isthmian Canal Commission and inhabitants of the *Zone*.

The sum of $55,500 was set apart for the repairs and necessary new construction about the old hospital, but a partial repayment of $42,500 already appropriated by the Panamanian Government was provided for, leaving $13,000 to be paid by the United States. At the same time an agreement was made with the Panamanian Government by which the Commission was to furnish a portion of the hospital staff and all other expenses were to be borne by the Panamanian Government. The amount of money appropriated, $55,500, not proving sufficient for the work, the $42,500 which was to have been taken as a repayment by the Commission was turned over for the work at Santo Tomas. This amount still proving too small, the Commission at the 122nd meeting, on March 27, 1907, appropriated a further sum of $20,000, making in all $118,000 Of this amount, the books of the Commission show there has been expended for the work on Santo Tomas hospital $111,871.99.

Santo Tomas hospital before the American control consisted of a group of old Spanish buildings, some of frame and others of masonry construction, all of them being in a dilapidated condition. These buildings were arranged generally on three sides of a rectangle, facing on two streets, having frontages respectively of 300 and 387 feet. They enclose a beautiful patio or court, invisible from the streets, which contained royal palms arranged in avenues and tropical foliage with religious statuary scattered throughout. In one of the arcades facing the patio are two old inscriptions, in relief, one in Latin and the other in Spanish. The first:

> Come unto me all ye that labor and are heavy laden and I will give you rest.—At Panama, the first day of the month of January in the year of our Lord, 1842.

The other reads as follows:

> The most Illustrious Bishop of the Diocese Fray José Higinio Durán, the gentlemen Don Ventura Martinez and Don Jose Maria Vera, were the founders of this hospital dedicated to the relief of afflicted humanity—the sons of Panama respecting the last paternal will of Martinez, and giving sufficient means, with the cooperation of the godfather, Don José Maria Blanco, finished it in January of the year of our Lord, 1842.

The old institution was supposed to be supported by the Colombian Government, and it had also direct incomes from the Panama Lottery amounting to about $20,000, gold, per annum, from the Municipality $600, and small amounts from public charity. When the United States took control, the accumulated bills, which amounted to about $15,000, and which should have been paid from the funds of the Colombian Government, were met by the Panamanian Government.

A Board of civilians governed the hospital and the entire medical staff consisted of one physician. There were between 125 and 150 patients who were cared for by 12 Sisters of the Order of St. Vincent de Paul. These Sisters were assisted in the laundry work and in the kitchen by about 25 orphan girls. The hospital was closed in the early part of the evening and the patients were left to themselves during the night. Surgery was performed only in emergency cases, as there were practically no facilities for this class of treatment. The buildings contained no modern plumbing or water supply and were in a very unsanitary condition.

In the renovation of the hospital an effort was made to preserve the patio and foliage and to arrange the new buildings in such positions as to interfere with them as little as possible. Sanitary plumbing and a fire protection system were provided throughout, both in the old buildings repaired and in those newly constructed. The grounds were cleaned and graded, guttering added, underbrush cleared, earth closets removed, and the whole place put in such sanitary condition as the installation of a sewer and water system permitted.

Among the new buildings constructed by the Commission were the following:

A modern operating building, 58 feet square, equipped with the most improved surgical appliances; a central kitchen to provide food for the whole establishment and a dispensary building with quarters on the upper floor for the Sisters. These quarters were later used for the trained nurses. A two-story dormitory for the orphans who assisted the Sisters in the house work, was also built. This building is now used as a woman's ward and contains 38 beds. A stable, an ambulance house, a post mortem and dead house were also provided. Second story additions were made to some of the old buildings.

In addition to the buildings constructed by the Commission, the Panamanian Government has provided at its own expense a large masonry, two-story maternity ward containing 24 beds, with an operating and dressing room. The entire establishment covers approximately two and one-half acres of land.

The hospital is equipped the same as the other Commission hospitals. It can accommodate 300 beds and has 11 private rooms. The average number of patients is about 200.

Of the hospital staff the Commission furnishes one superintendent, two internes, and three nurses, with a total expense of $835 per month. This is all the expense which the Commission is now under in connection with this hospital. Of the staff the Panamanian Government provides five physicians and eight nurses and is under a monthly expense of between five and six thousand dollars, gold, of which $2,300 is for salaries.

The general appearance of the hospital, except the patio, is very different from the old establishment. The work started in 1842 has developed into an up-to-date and well organized institution.

Cristobal Will Celebrate the Fourth.

Cristobal will have a special celebration of the Fourth of July, and will invite Gatun, Porto Bello and nearby places to participate. A meeting was held at the Club House Thursday evening, May 21, at which this decision was reached and the following heads of committees were chosen: Amusements, C. R. Chisholm; Music. W. H. Storm; Finance, Edgar Lowe; Fireworks, M. J. Stickel; Decorations, F. W. Hart; Publicity, W. S. Lawrence.

A subscription paper was started the following day and promises of enough money to defray the expenses have already been procured. It is the desire of the promoters that the celebration be considered in no way as in competition with the big demonstration to be held at Ancon. It is for the benefit of people who hesitate to take the journey across the Isthmus and back. The program, as outlined, includes outdoor sports of a comic character, such as mule, pony, bicycle, fat men's, lean men's, and boys' races; together with a band concert afternoon and evening by the Canal Zone Band; a ragamuffin parade; exhibition run by the Fire Department; motor-boat races, and fireworks from a barge anchored off Cristobal Point.

WOMEN IN THE ISTHMIAN SERVICE.

Number Employed, Positions Filled and Salaries Paid.

Of the sixty-one hundred "gold employes" of the Government on the Isthmus; only 205 are women. The Isthmian Canal Commission employs 187 women and the Panama Railroad Company 18.

The first women employed by the Isthmian Canal Commission were Miss Eugenie Hibbard, Superintendent of Nurses, appointed June 7, 1904, and Misses Margaret E Maguik and Mary C. Markham, trained nurses, appointed June 21, 1904. Miss Markham is now in the employ of the Commission, but her service has not been continuous. Eight additional nurses sailed from New York July 12, 1904. Of these eight nurses three are still in the service. They are Misses Jessie Murdock, Eleanor J. Smith and Anna R. Turner. The great majority of the trained nurses subsequently appointed have been women. Their employment has been desirable on account of the peculiar fitness of women for this work. It was possible to employ women, even in the early days of the American occupation, because trained nurses were required only at Ancon and Colon hospitals—where quarters could be provided for them in buildings transferred to the Commission by the French Canal Company. There are now 117 female nurses in the service.

Women have been employed to teach in the schools, as they have been employed to nurse in the hospitals, on account of their natural qualifications for the work and because at the salaries paid it is easier to secure women with the requisite experience than men. Of the 25 women teachers now employed a majority are the wives or the daughters of male employes who were living in the Canal Zone prior to their appointment, and comparatively few women teachers have been brought from the United States. The first of the Canal Zone free public schools was opened in January, 1906, at Corozal with Miss Emily Kyte as teacher.

In addition to the nurses and the teachers, 45 women are employed by the Commission on a gold basis. Seventeen of these are rated as copyists, ten as coupon counters, four as clerks, two as postal clerks, two as dietists, two as laundresses, two as matrons, two as timekeepers, one as telegrapher, one as storekeeper, and one is employed on special service. The highest salary paid any woman in the service is $175 a month and the lowest salary paid is $25 a month. The average salary of the women now in the service is $73.90 a month.

Women have not been generally employed in clerical positions, because the Commission cannot undertake, except at a disproportionate expense, to provide quarters for female employes. Almost without exception, the women who have secured appointments in the offices of the various departments are related to male employes occupying married quarters, who provide them a home.

It is only in very rare instances that applications for clerical employment submitted by women in the United States can receive favorable consideration. Appointments to clerical positions paying more than $75 a month, and to the position of nurse are made from the registers of the Civil Service Commission.

In the following table the number and title of positions filled by women under the Isthmian Canal Commission on the Isthmus of Panama, April 1, 1908, and the salaries paid, are given:

Clerk (chief), 1	$175	Nurse (supt.), 1.	$150
Clerk, 1	150	Nurse (supt.), 1.	125
Clerks, 2	125	Nurse (asst supt.) 1	125
Clerk (postal), 1.	125	Nurses, 2	100
Clerk (postal), 1.	100	Nurses, 53	75
Copyists, 15	75	Nurses, 56	60
Copyists, 1	65	Nurse, 1	50
Copyist, 1	60	Spec'l service, 1	50
Coupon counters, 10	60	Storekeeper, 1	50
Dietists, 2	100	Teachers, 6	110
Laundresses, 2	50	Teachers, 13	90
Matron, 1	100	Teachers, 6	60
Matrons, 2	25	Telegrapher, 1	87.50
Nurse (chief), 1	125	Timekeeper, 1	75
Nurse (chief), 1	100	Timekeeper, 1	60

The highest salary paid by the Panama Railroad Company to a woman is $125 a month, for a telegraph operator, and the lowest is $50 a month. Appointments are not made from registers of the Civil Service Commission, but only persons experienced in the class of work to be done are employed. The positions filled by women on a gold basis are:

One telegrapher, one special agent, six coupon counters, one stenographer, one laundress, one order clerk, four cashiers, two copyists, one clerk.

In addition to these women employes on a gold basis, the Panama railroad employs on the silver roll a number of American women from families living on the Isthmus.

Output of Vegetable Gardens.

Although the heavy rains of the past few weeks did considerable damage to some of the crops, the I.C.C. gardens at Corozal and Empire yielded the following quantities of vegetables between the 1st and the 25th of May:

	Tomatoes lbs	*Beans lbs*	*Cabbage lbs*	*Lettuce heads*	*Onions lbs*
Empire	2,856	252	219	1,250	45
Corozal	1,064	395			
Total	3,920	647	219	1,250	45

In addition the Corozal garden produced 100 lbs. of red beets and 88 lbs. of egg plant and a few turnips, radishes and other vegetables.

Isthmian Baseball League.

Scores, May 24, 1908:

At Ancon Park: M. P. & M., 10: Culebra, 6.

At Empire Park: Ancon, 10; Marines, 0.

At Gorgona Park: Gorgona, 9; Empire, 0 (forfeited to Gorgona).

STANDING OF THE LEAGUE.

May 25, 1908:

	Played	*Won*	*Lost*	*Per cent*
Ancon	19	17	2	895
M. P. & M	20	15	5	750
Empire	19	14	5	737
Culebra	19	8	11	421
Kangaroos	20	8	12	400
Gorgona	20	5	15	250
Marines	19	1	18	052

To be played May 30, 1908:

At Empire Park: Empire vs. Ancon

At Gorgona Park: M. P. & M. vs. Gorgona and Marines vs. Culebra (double header)

To be played May 31, 1908:

At Ancon Park: Empire vs. Marines

At Empire Park: Kangaroos vs. Gorgona.

At Gorgona Park: Culebra vs. Ancon

Subscriptions for the Fourth at Ancon.

Subscription lists for the celebration of the Fourth at Ancon have been distributed generally among the Americans on the Isthmus. Present indications are that the amount of money estimated by the Committee as necessary to cover the expenses of the celebration will be subscribed. The Committee hope to have all lists in by Friday, the 29th, in order that the amount of money subscribed may be known at the meeting to be held Saturday morning.

Notice to All Odd Fellows.

THE CANAL RECORD:

I shall institute Canal Zone Lodge No. 3, I. O. O. F., at Culebra on Friday evening, May 29. Meeting called 7 o'clock p. m. All members of the Order are earnestly requested to be present. Isthmian Canal Lodge No. 1, I. O. O. F., of Gorgona, will be present and initiate the new members and confer the degrees.

B. F. SISSON,
District Deputy Grand Sire, Sovereign Grand Lodge.

Gorgona, May 22.

Concert.

By the I. C. C. Band at Gorgona, C. Z., Saturday, May 30, at 3 p m.

PROGRAM.

1	March	*Flag of Victory*	Von Blon
2	Selection	*The Sho Gun*	Luders
3	Waltz	*La Serenata*	Jaxone
4	Intermezzo	*Nippono*	Lincoln
5	Medley	*Popular Songs*	Von Tilzer
6	Idyl	*Evening Breeze*	Langey
7		*Nautical Fantasia*	Tobani
8		*Little Kinkies*	Bendix
9	Overture	*Schauspiel*	Bach
10	Finale	*Crescent*	Rollinson

OLIVER KIMBALL,
Director.

The next concert will be given at Hotel Tivoli, Sunday, June 7.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, May 23, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Agnew, Hannah
Alcee, Evans V
Anderson, Frank
Blackburn, W H (2)
Booy, Thomas S
Bowers, Vernon C
Chattey, J N
Chattey, Mrs J N
Clardy, H B
Close, Joe
Culpepper, Rebecca
Dailey, Michael
Dailey, John
Dailey, Thomas
Dallow, Arthur
Davis, Johnie
Gendreau, Homer
Gil, Meliton Priete
Hamilton, Daisy
Holmes, W J
Horner, S H
Johnston, W B
Jones, Norman L
Lewis, Fitz James
Licorish, Joseph N
McAdam, G M
McClinton, J L
McDonald, Robt
Muloky James
Roberts, Fred C
Santon, Mrs W D
Sheridan, A
Smith, R C
Snapp, B M
Thaie, John
Warrilow, Richard
Wilson, James

Rainfall from May 1 to 23, 1908, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Maximum in one day.	Total.
Atlantic Slope.		
Porto Bello	4.46	18.61
Cristobal	3.82	20 60
Brazos Brook	3.51	18.64
Gatun	2.70	15 66
Bohio	3.10	16.78
Tabernilla	2.00	12 46
San Pablo	1.81	9.16
Central Section.		
Bas Obispo	2 20	11.88
Gamboa	2.90	13.55
Empire	1.98	11 95
Camacho Dam	2.24	16.06
Culebra	2.35	11 58
Rio Grande	2.84	13.15
Pacific Slope.		
Pedro Miguel	2 05	13 52
La Boca	3.81	7 55
Ancon	2,02	5.62
Upper Chagres.		
Alhajuela	3.62	18.06

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

CULEBRA.

The bowling alleys of the Culebra Association have recently been planed and dressed and are now in the best possible condition. A tournament starts Thursday night, May 28, with twenty-four entries to determine the individual championship. It will be entirely a hand cap affair and prizes will be offered for first, second and third places, high score, high average with handicap and high average without handicap

The first annual anniversary smoker of the Culebra Association was held last Thursday night and was largely attended. A few introductory remarks by Dr. Coolidge, president of the council, music by the orchestra, and a solo by Mr Ham preceded the illustrated lecture on "Our Navy," by C. L. Chester. Following the program in the hall, a pool and billiard match with Empire was held, the latter winning all three pool, and Culebra both billiard matches. The following are the scores:

POOL.

Thomas, (Empire)	100
Evans (Empire)	100
McKeever (Empire)	100
Roberts (Culebra)	92
Fleishman (Culebra)	73
Stevens (Culebra)	88

BILLIARDS.

Doty (Culebra)	100
Bayne (Culebra)	100
Quarrel (Empire)	38
Moeller (Empire)	79

Culebra won on total number of points scored 453 to 417.

Culebra will be represented by twelve men at the coming track meet at Gorgona. As all the men have been hard at work, new Isthmian records may be looked for in many events.

The new books are so popular that one rarely remains on the shelves more than a few hours before it is taken out again. The first week they were here every book was out. The May list has been ordered and should be here shortly. About twenty new members have taken advantage of the library since the arrival of the new books.

GORGONA.

The 1907 First Bowling team defeated a team composed of the high average men of the recent tournament in a very good match on Monday night, May 18. The scores were as follows: First team, 856, 796, 898; Scrubs, 829, 787, 847. Chelf had an average of 198 and Collins 187 for the three games.

High scores for the last week were: Collins, 222; McCormack, 214; MacConaughey, 207; Chelf, 205; Lasker, 205; Driscoll, 202; Fenin, 202; Hayes, 201.

Messrs C. S Boyer and D. E. Hayes have begun a championship checker tournament. The first games were played on Monday evening, May 18, and resulted in two drawn games and two games won by Mr. Hayes. The Gorgona checker players challenge any four checker players on the Isthmus for a series of games.

Messrs. Glen Pierson, Albert J. MacLellan and Don E Irwin, compose the new committee on the organization of a billiard and pool tournament.

The association barber shop has just been installed in its new quarters, with Mr. C. E. Angel, an American barber in charge. Non-members are admitted to the privilege of the shop at a slight increase in rates. Hot and cold water is to be installed with all modern improvements and everything in this department is open to the white public.

The bowling alleys have just been refinished and the local bowling league will begin its third tournament on Monday evening, May 25.

The new elementary Spanish class opened last Friday with a large increase in membership.

Two hundred and thirty people attended the Chester travel lecture on Tuesday evening. Mr. Chester lectures again in Gorgona on Tuesday, May 26, and on Tuesday, June 2.

The following steamers have recently arrived at La Boca: May 18, *Quillota* from Valparaiso; May 21, U. S. S. *Albany* from California, and *Quito* from Buenaventura. Departures were: May 18, *Luxor* for southern ports; May 19, *Tucapel* for Valparaiso; May 22, *City of Panama* for San Francisco.

OFFICIAL CIRCULARS.

Grade of Laborer A-1 Abolished.

CIRCULAR No. 172.

Effective June 1, 1908, the grade of Laborer A-1 will be abolished. Thereafter, all such laborers will be designated Laborer 1, and will paid at the rate of 20 cents silver per hour.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, May 7, 1908.

Reduced Rates on Panama Steamships.

CIRCULAR No. 175.

Reduced rates of transportation on steamers of the Panama Railroad Steamship Line will be granted hereafter to employes and dependent members of their families as follows (males over 21 not to be considered dependent):

Twenty-Dollar Rate.

To all monthly employes on regular leave with pay and to all hourly employes who take annual vacation leave without pay.

To wives and dependent children, brothers and sisters of employes who intend to make the Isthmus their home.

To parents of employes and of employes' wives upon certificate that they are dependent on such employes and intend to make the Isthmus their home.

This rate will be granted approximately once a year.

Forty-five-Dollar Rate.

To those above named who request transportation oftener than approximately once a year.

To all *dependent* relatives of employes, such as wives, children, brothers, sisters, mothers, fathers, nieces and nephews, who desire to visit such employes.

To relatives of employes' wives, such as brothers, sisters, mothers, fathers, nieces and nephews, who desire to visit such employes *and who are dependent on them.*

GEO. W. GOETHALS,
Chairman.

Culebra, May 25, 1908.

Deductions for Loss or Damage of Tools.

OFFICE OF THE DISBURSING OFFICER,
Empire, C. Z., May 25, 1908.

CIRCULAR No. 38.

TO ALL HEADS OF DEPARTMENTS:—Please refer to Circular No. 171 of the Chairman and Chief Engineer, dated May 9, relative to tools and material lost and damaged by employes, and in making rolls you will, effective with May Pay Rolls, be governed by the following instructions:

Deductions for wilful neglect or carelessness, causing loss or damage of tools or material, shall be entered on pay roll and, after completion of this roll, bill on Form D. O. 390–A will be rendered in quadruplicate to the Disbursing Officer. This bill will be made against the head of the department and will specify theron the name of the employe, the item or items, and the cause for which deduction is made, as well as the roll number. Bill to be approved by the head of department as "Correct."

In rendering this bill please indicate on the face thereof credit to the proper expenditure account, taking same up on your Material Account Current, Form D. O. 401, under the heading "Individuals and Companies;" attaching the bill in support thereof. The collection on pay roll will be applied on bill as rendered against the head of department.

Please be governed accordingly.

Respectfully,
(Sgd.) EDWARD J. WILLIAMS,
Disbursing Officer.

Approved:
(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Unclaimed Packages.

The following is a list of packages that have been forwarded from New York to Isthmian Canal Commission and Panama railroad employes, and that are waiting to be claimed at the freight house at Colon. Applications of claimants should be made through the freight agent, P. E. Cruchley. The owners of these packages will have to make application for free customs entry in connection with Circular No. 85, or in the alternative, pay duty to the Panama Government customs on the value of the contents of the packages, before delivery can be effected.

	Charges to collect
Way-bill 209—C. E. Kelliher, Ancon, 2 packages, ex *Allianca*; April 29, 1908	$4.25
Way-bill 207—Louis Betz, Cristobal, 1 box personal effects, ex *Panama*: April 24, 1908	1 00
Way-bill 205—R B. Smith, 1 parcel rubber goods, ex *Advance*; April 20, 1908	1 00
Way bill 89—J H Higgins, Cristobal, 2 cases picture machinery, ex *Colon*; June 29 1907	3.00
Way-bill 189—Isaiah Shirley, Ancon, 1 box drugs, ex *Allianca*; March 9, 1908	1.00
Way-bill 201—C. E. Weidman, Cristobal, 1 case hats, ex *Finance*; April 9, 1908	1 00
Way-bill 165—Jas. Vaughn, 1 box, ex *Dunottar Castle*: January 15, 1908	1 00
Way-bill 205—H Moltzen, Colon, 1 package, ex *Advance*; April 20, 1908	1 00
Way-bill 205—A. R Dametrius, Ancon, 1 package, ex *Advance*; April 20, 1908	1 00
Way-bill 207—P. G Baker, Colon, 1 case; ex *Panama*; April 24, 1908	1.00
Way-bill 203—G. Sweeton (or Swelton), Ancon hospital, 1 box notions, ex *Esperanza*; April 13, 1908	1.00
Way-bill 213—A. M. Warner, Las Cascadas, 1 package, ex *Esperanza*; May 10, 1908	1 00
Way-bill 211—Walter S Glass, Colon, 1 package, ex *Finance*; May 5, 1908	1.00
Way-bill 213—Jno. H. Weller, Colon, 1 package ex *Esperanza*; May 10, 1908	1.00
Way-bill 153—H. A. Yiernan, Gorgona, 1 package, ex *Finance*; December 26, 1907	1.00
Way-bill 199—John Burke, Cristobal, 1 parcel samples, ex *Allianca*; April 3 1908	1.00
Way-bill 195—W. R. McCann, Culebra, 1 parcel cement, ex *Advance*; March 25, 1908	1.00
Way-bill 153—Manuel Diez, Panama, 1 package ex *Finance*; December 26, 1907	1 00
Way bill 203—J. E. Johnson, La Boca, (or Culebra), 1 box tobacco, ex *Esperonza*; April 13, 1908	1.00
Way-bill 209—J. A. Fraser, Cristobal, 1 package, ex *Allianca*; April 29, 1908	1.00
Way-bill 187—C. G. Letts, Colon, 1 package, ex *Panama*; March 2, 1908	1.00
Way-bill 153—G. H. Beldon, Cristobal, 1 parcel books, ex *Finance*; December 26, 1907	3.25
Way-bill 207—Dr. Grant Roberts, Empire, 1 parcel repairs, ex *Panama*; April 24, 1908	1 00
Way-bill 146—M. C. Benson, Bas Obispo, 1 crate machine, ex *Advance*; December 9, 1907	3.00
Way-bill 209—W. Bennett, Paraiso, 1 trunk, ex *Allianca*; April 29, 1908	4.25
Way-bill 111—S. G. M., Cristobal, 1 box hardware, ex *Advanee*; August 25, 1907	1.00
Way-bill 209—C. E. Henry, Gorgona, 1 box motor, ex *Allianca*; April 29, 1908	4.60
Way-bill 209—J. E. Gilmore, Panama (or Empire), 1 crate roofing paper, ex *Allianca*; April 29, 1908	3.00
Way-bill 205—H. O. Hostetter, Culebra, 1 case books, ex *Advance*; April 20, 1908	1.00
Way-bill 213—Owen T. Taylor, La Boca, 1 box books, ex *Esperanza*; May 10, 1908	5.08
Way-bill 211—Miss Inger Miller, Ancon, 1 box groceries, ex *Finance*; May 5, 1908	1.00
Way-bill 197—E. P. Matter, Empire, 2 parcels household goods, ex *Panama*; March 30, 1908	7.38
Way-bill 209—Guida B. Pompeji, Cristobal, 1 box glass, ex *Allianca*; April 29, 1908	3.00
……………… Mrs. C. F. Knowlton, Gorgona, 1 package	3.00
Way-bill 209—R. W. Hart, Colon, 1 box fruit, ex *Allianca*; April 29, 1908	1 50
Way-bill 213—P. Baker, Cristobal, 1 box Eld. powder, ex *Esperanza*; May 10, 1908	1.00
No. 7,321—J. M. Chumacero, Colon, 1 parcel, ex *Dunottar Castle*; November 24, 1907	prepaid
No. 7,232—J W. Foulkes, Colon, 1 parcel, ex *Dunottar Castle*; September 30, 1907	prepaid
No 7,564—Mayer Unterberg, Panama, 1 parcel, ex *Esperanza*; April 13, 1908	prepaid
No. 7,503—Jos. V. Sadler, Pedro Miguel, 1 parcel, ex *Finance*; March 14, 1908	prepaid

COMMISSARY DEPARTMENT.

NOTICE.

On and after Sunday, April 5, the Commissaries will not be open for business on Sundays or Legal Holidays. Purchases should be made on Saturday or the day preceding a holiday.

JOHN BURKE,
Manager.

COMMISSARY PRICES

For week ending May 26 :		*Price.* CTS.
FRESH MEATS.		
Beef—Sirloin roast	per lb	28
Rump roast	do	28
Porterhouse	do	28
Rib-roast, short-cut, (not under 3½ pounds	do	20
Rib-roast, second cut	do	17
Chuck-roast	do	13
Soup	do	7
Stew	do	12
Corned	do	10, 12 14
Suet	do	4
Steaks—Sirloin	do	28
Porterhouse	do	28
Rump	do	28
Round	do	20
Veal—Loin	do	23
Entire forequarters	do	11
For stewing	do	11
Mutton—Entire forequarters	do	9
Short-cut chops	do	20
Leg	do	18
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	30
Legs	do	28
Pork—Cuts	do	20
MISCELLANEOUS.		
Livers—Beef per lb...		10½
Livers—Calf	each...	60
Sausage—Pork	per lb...	16
Lieberwurst	do	15
Sweet bread—Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' tongues(salted)	per lb...	24
Pigs' tongues, pickled and cooked.	do	11
Ox tongues	each...	90
POULTRY AND GAME.		
Chickens, dressed (milk-fed),	each...	†1 50
Chickens, large	do	1 70
Fowls	do	1.15
Ducks, fatted (fancy)	do	1.07
Suckling pigs	do	4.90
Turkeys	per lb...	28
Squabs	do	35
Broilers (chicken frys)	each...	90
Eggs, fresh	per doz...	28
Geese (10 lbs)	each...	2.00
Capons	each...	2.40
CURED MEATS AND LARD.		
Bacon—Strips	per lb...	23
English breakfast, sliced..	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Yorkshire (imported)	do	25
Westphalia	do	45
Whole, Ferris	do	19
Tropical	do	18
DAIRY PRODUCTS.		
Butter—prints, prime quality	per lb...	35
Cheese—Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	33
Gouda	do	34
Edam	each...	1.05
Camembert	do	28
Pinxter's	tin...	22
McLaren's	jar...	15
Milk, Briarcliff	quart..	**25
Buttermilk	bot...	**15
FRUITS AND VEGETABLES.		
Oranges	per doz...	12
Grape Fruit	each...	†4
Limes	hun...	70
Lemons	per doz...	15
Apples	per lb...	4½
Beets	per lb...	6
Dandelions	per lb..	*10
Spinach	do	6
Celery	bunch...	†28
Rhubarb	per lb...	8
White potatoes	per lb...	3
Cabbage	do	3
Wax beans	per lb...	18
Onions	per lb ..	4½
Tomatoes	per lb...	11
Radishes	do	15
Sweet potatoes	per lb...	2½
Lettuce	do	18
New potatoes	do	4½
Turnips, Rutabagas	per lb...	4½
Carrots	per lb...	5

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* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from Commissaries.*

NOTICE OF PRICE CHANGES.

		Old Price. CTS.	*New Price.* CTS.
Sugar, granulated, 5-lb sacks	sck	22	23
Milk, Fussel's green Butterfly, traveler's size	tin	5	2
Soap, Castile	lb	14	12
Oats, shredded	pkg	10	12
Suit cases, leather stock, stock No. 38,541	ea	8.80	10.30

NEW ARTICLES

		Price. CTS.
Silkoline, printed, Egyptfield, stock No. 41,841	yard...	12
Silkoline, printed, Bluefield, stock No. 41,842	do	12
Hangers, garment, stock No. 41,843	each...	25
Mirrors, hand, No. 87,151, stock No. 41,846	do	95
Pins, safety, duplex, stock No. 41,847	cab't..	2.20
Jellies, assorted, Royal Scarlet, 10-oz	jar...	18
Jellies, assorted, Royal Scarlet, 18-oz	do	31
Herrings, fresh, in tomatoes, Eng.	tin...	12
Tea, Omphale, 1s	pkg...	36
Sardines, in oil, Carlos Albo, ¼s..	tin...	5
Sardines, in tomatoes, Carlos Albo, ¼s..	do	5
Pillow cases, linen, 22x32, stock No. 41,931	each...	50
Carvers, meat, No. 176, stock No. 41,932	set...	1.35
Knives, paring, No. 123½, stock No. 41,933	each...	7
Shovels, stove, No. 54, stock No. 41,934	do	50
Griddles, cake, No. 9, stock No. 41,936	do	32
Griddles, cake, No. 10, stock No. 41,937	do	42
Refrigerators, Grand Rapids, No. 802, stock No. 41,938	do	25.65
Refrigerators, Grand Rapids, No. 805, stock No. 41,939	do	29.70
Pans, muffin, No. 6, stock No. 41,943	do	8
Pans, muffin, No. 8, stock No. 41,944	do	10
Pans, muffin, No. 12, stock No: 41,945	do	15
Toasted corn flakes, 2s	tin	57
Shirts, Balfour, No. 8014, stock No. 41,959	each...	75
Brushes, scrub, No. 85, stock No. 41,962	do	20
Paste, anchovy, English, C. & B ..	jar...	20
Salt, fine table, 4-lb jars, royal scarlet	do	13
Cigarettes, Home Run, stock No. 41,963	pkg...	5
Tobacco, smoking, "Les Enfantes de la Mer," stock No. 41,964	do	7
Ties, silk, four-in-hand, stock No. 41,914	each...	47
Combs, hard rubber, No. 901, 7½ in., stock No. 41,972	do	15
Combs, hard rubber, No. 202, 7 in , stock No. 41,973	do	10
Combs, hard rubber, No. 17, stock No. 41,974	do	35
Pins, Millar book, stock No. 41,965	book...	10
Buttons, pearl, stock No. 41,966..	doz...	8
Buttons, pearl, stock No. 41 967..	do	10
Parasols, No 7, stock No 41,968.	each...	1 00
Parasols, No. 8, stock No. 41,969.	do	1.85
Parasols, No 9, stock No. 41,971.	do	2,00
Embroidery, corset cover, stock No 41,975	yard...	72
Cream, honey and almond, stock No. 42,117	pkg...	40
Chairs, reception, wicker, No. 7,745a, stock No. 41,976	each...	10 85
Chairs, reception, wicker, No. 7,617a, stock No. 41,977	do	8.05
Chairs, reception, wicker, No. 6 849a, stock No. 41 994	do	10 50
Chairs, reception, wicker, No. 6,045a, stock No. 41,996	do	7 70
Chairs, reception, wicker, No. 6,846a, stock No 41,997	do	9.45
Chairs, golden oak, No. g355-1, stock No. 41,981	do	2.75
Chairs, golden oak, No. g381-2, stock No. 41,982	do	2.80
Chairs, golden oak, No. g399-1, stock No. 41,983	do	3.15
Chairs, arm, golden oak, No. g8-5, stock No. 41,984	do	4.40
Chairs, arm, wicker, large, No. 6844c, stock No. 41,993	do	15.40
Chairs, arm, ladies', No. 6830a, stock No. 42,112	do	11.20
Rockers, ladies', No. 7708b, stock No. 41,978	do	9 45
Rockers, ladies', No. 6629b. stock No. 41,995	do	5.60
Rockers, ladies', No. 6821b, stock No. 41,998	do	7.00
Rockers, ladies', No. 104b, stock No. 41,999	do	3.85
Rockers, ladies', No. 6829b, stock No. 41,111	do	7.70

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON

Finance	P R.R.	Monday	May	25
Prinz Sigismund	H.-A.	Friday	May	29
Tagus	R -M.	Saturday	May	30
Esperanza	P.R.R.	Saturday	May	30
Advance	P R.R.	Wednesday	June	3
Prinz Joachim	H.-A.	Saturday	June	6
Panama	P.R.R.	Monday	June	8
Pr. Eitel Friedrich	H.-A.	Friday	June	12
Allianca	P.R.R.	Saturday	June	13
Magdalena	R.-M.	Saturday	June	13
Finance	P.R.R.	Thursday	June	18
Pr Aug. Wilhelm	H.-A.	Saturday	June	20
Esperanza	P R R.	Wednesday	June	24
Prinz Sigismund	H.-A.	Friday	June	26
Orinoco	R -M.	Saturday	June	27
Advance	P.R.R	Monday	June	29
Colon	P R R.	Friday	July	3
Prinz Joachim	H.-A.	Saturday	July	4
Allianca	P.R.R.	Wednesday	July	8
Pr Eitel Friedrich	H.-A.	Friday	July	10
Atrato	R.-M.	Saturday	July	11
Finance	P.R.R.	Monday	July	13
Esperanza	P.R.R	Saturday	July	18
Pr Aug Wilhelm	H -A.	Saturday	July	18
Advance	P.R.R	Thursday	July	23
Prinz Sigismund	H -A..	Friday	July	24
Clyde	R.-M.	Saturday	July	25
Colon	P.R R	Tuesday	July	28
Prinz Joachim	H.-A.	Saturday	Aug.	1
Allianca	P R R.	Monday	Aug.	3
Finance	P.R.R	Friday	Aug.	7
Pr Eitel Friedrich	H.-A.	Friday	Aug.	7
Trent	R.-M.	Saturday	Aug.	8
Panama	P R.R	Wednesday	Aug.	12
Pr. Aug. Wilhelm	H.-A.	Saturday	Aug.	15

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON TO NEW YORK

Panama	P.R.R.	Wednesday	May	27
Allianca	P R R.	Monday	June	1
Magdalena	R -M..	Tuesday	June	2
Finance	P.R.R	Saturday	June	6
Pr. Aug. Wilhelm	H -A.	Tuesday	June	9
Esperanza	P R.R	Thursday	June	11
Advance	P.R.R	Tuesday	June	16
Orinoco	R -M..	Tuesday.	June	16
Panama	P.R.R	Sunday	June	21
Prinz Joachim	H -A.	Tuesday	June	23
Allianca	P.R.R	Friday	June	26
Atrato	R -M.	Tuesday	June	30
Finance	P R.R.	Wednesday	July	1
Esperanza	P.R.R.	Monday	July	6
Pr Aug Wilhelm	H -A.	Tuesday	July	7
Advance	P R R.	Saturday	July	11
Clyde	R -M..	Tuesday	July	14
Colon	P R R	Thursday	July	16
Allianca	P R.R.	Tuesday	July	21
Prinz Joachim	H -A.	Tuesday	July	21
Finance	P.R.R	Sunday	July	26
Trent	R -M..	Tuesday	July	28
Esperanza	P.R.R	Friday	July	31
Pr Aug Wilhelm	H.-A.	Tuesday	Aug.	4
Advance	P.R.R.	Wednesday	Aug.	5
Colon	P R R	Monday	Aug.	10
Tagus	R -M..	Tuesday	Aug.	11
Allianca	P.R R	Saturday	Aug.	15

FROM NEW ORLEANS TO COLON

Preston	U F.C..	Saturday	May	30
Harry T. Inge	U F.C..	Saturday	June	6
Ellis	U.F.C..	Saturday	June	13
Preston	U.F.C..	Saturday	June	20

FROM COLON TO NEW ORLEANS

Ellis	U.F.C..	Tuesday	June	2
Preston	U.F C..	Tuesday	June	9
Harry T. Inge	U.F.C..	Tuesday	June	16
Ellis	U.F C..	Tuesday	June	23

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Tagus	R.-M.	Tuesday	June	9
Magdalena	R -M..	Tuesday	June	23

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's Line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company despatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

CANAL RECORD

Volume I. · ANCON, CANAL ZONE, WEDNESDAY, JUNE 3, 1908. No. 40

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Comacho River Diversion.

A fill was made on the Culebra Division on May 24, that has diverted the water of the Comacho river at the south end of the Whitehouse yard so that, instead of running into the Canal at that point as heretofore, it now runs through a new diversion channel parallel with the present line of the Panama railroad and empties into the old channel of the Comacho at Las Cascadas. The fill was made in one day by one train of Western dump cars. The diversion keeps the water away from the shovels in that vicinity and they are consequently making better progress.

May Excavation.

The grand total of excavation during the month of May was 2,703,923 cubic yards, all of which except 177,673 was taken from the Canal prism. This establishes a new record for excavation in the rainy season, for while it shows a decrease of 592,173 cubic yards as compared with the total of the preceding month, as compared with May, 1906, it shows an increase of 1,687-027 cubic yards. There were 25 working days both in April and May. Of the grand total of May excavation, 1,609,071 cubic yards were taken out by steam shovels, and 1,094,852 by dredges.

From the Culebra Division there were removed 960,840 cubic yards, all of which except 30,661 were taken from the Canal prism; from Mindi all within the Canal prism, 54,333 cubic yards were removed; from the Chagres Division, all within the the Canal prism, 235,902 cubic yards.

From the Gatun locks and spillway there were taken 266,747 cubic yards, of which, 138,815 cubic yards were from the Canal prism; from the Miraflores locks there were taken 74,049 cubic yards, all but 19,080 of which were taken from the Canal prism.

There were taken out by dredges from the La Boca Division 530,466 cubic yards, and from the Colon Division 564,386 cubic yards, all within the Canal prism.

The rainfall for May was 14.7 inches, more than double that of May, 1907, which was 7 1 inches and nearly double that of May, 1906, which was 8.4 inches. Five steam shovels on the upper slope at Culebra were forced out of use and work will not be resumed there until the dry season begins. A detailed statement of the May excavation is appended:

Department of Excavation and Dredging

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Culebra Division.	930,179	30,661	960,840
Mindi..................	54,333	....	54,333
Chagres Division	235,902	....	235,902
Cardenas Hill.. ..	17,200	....	17,200
Total..........	1,257,614	30,661	1,268,275
Dredges—			
Colon Dredging Division..........	564,386	....	564,386
La Boca Dredgi'g Division..........	530,466	....	530,466
Total...........	1,094,852	....	1,094,852
Grand total.....	2,332,466	30,661	2,363,127

Department of Lock and Dam Construction.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Gatun locks........	138,815	27,595	166,410
Gatun spillway ..	....	100,337	100,337
Miraflores locks .	54,969	19,080	74,049
Total......	193,784	147,012	340,796

Total Excavation, Entire Canal

How excavated.	In Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
By steam shovels	1,431,398	177,673	1,609,071
By dredges.........	1,094,852	....	1,094,852
Total...........	2,526,250	177,673	2,703,923

Figures of monthly excavation are based upon telephone reports from division engineers and are subject to slight alterations when official reports are received.

Manufacturing at the Shops.

Although the primary purpose of the shops on the Canal Zone is to do repairing, the new work or manufacturing that the exigencies of the service required be done at Gorgona, Empire and Paraiso during April cost $88,100.58 The value of the manufacturing done at the Empire shops was $42,-401.71, of which amount, $15,309 92 was for labor and the rest for material; Gorgona, $39,409.33, of which $17,880 89 was for labor; Paraiso, $6,289.54, of which $2,772 51 was for labor.

May Rainfall for Three Years.

Station.	1906.	1907.	1908.	Av'ge since station estab'd.	No. of rainy days
Atlantic Slope					
Cristobal.......	10.07	6 33	22.49	11.26	28
Brazos Brook	....	6.82	20.59	13.70	28
Gatun............	12 02	9.56	17.30	16.92	29
Bohio...	12.09	8.38	18.59	13.93	25
Tabernilla	....	....	14 78	14 78	27
San Pablo......	....	....	11.34	11.34	25
Central Sec.					
Bas Obispo ...	....	6.02	13.18	10.69	30
Gamboa........	6.22	5.98	15 12	10.72	27
Empire..........	7.54	6.36	12.91	9.58	25
Camacho.......	....	5.39	17.29	11 34	24
Culebra.........	7 25	7.49	12.43	11.37	27
Rio Grande...	5.20	7.35	14 16	11 22	24
Pacific Slope					
Pedro Miguel	....	....	14.73	14.73	22
La Boca.........	8 96	6.09	8 65	6 54	21
Ancon...........	10 68	4.44	7 64	8.50	21
Up. Chagres					
Alhajuela......	9.67	5.05	19.71	12 21	26

Mean rainfall at eleven stations along the line of the Canal where excavation is in progress in 1908, 14.7 inches; in same territory in 1907, 7.1 inches, and in 1906, 8.4 inches.

New Steel Dump Cars.

Five hundred steel dump cars, brought to the Isthmus knocked down, between February 1 and April 30, have been erected at the Cristobal shops, and loaded with coal to make them pay their way over the Panama railroad, have been delivered at various points along the Canal. The last of the consignment were erected this week. These are the 12-yard, steel dump cars built by the W. J. Oliver Manufacturing Company of Knoxville, Tenn , under a competitive contract at $1,175 each. Their inside length is 19 feet; width, 9 feet; depth, 1 foot 10½ inches. Their capacity, which means the weight of dirt they will carry, plus the force of the blow when the dirt strikes the car, is 60,000 pounds. Unloaded they weigh 32,000 pounds. These details are pertinent because the cars were designed especially for work on the Isthmus where they will be subjected to much more trying conditions than they would be in the States. Although they are the first of the Oliver cars they can scarcely be regarded as an experiment as they follow in general the design of the cars sent here by the Western Wheel Scraper Company, of which 1800 12-yard, and 300 20-yard cars are in commission and have done the best service in dirt and clay.

On April 14 the last of the 300 forty-ton, wood, flat cars, brought here, knocked down since January 21, were erected. They are

NOTES OF PROGRESS.

(*Continued*)

for use with the Lidgerwood Unloaders. With these additions the Isthmian Canal Commission now has in its service, not including the cars of the Panama Railroad Company, the following dirt cars:

50-ton steel flats	500
40-ton wood flats	1500
12-yard Western dump cars	300
20-yard Western dump cars	300
40-ton steel dump cars	12
50-ton wood, hopper bottom	12
12-yard Oliver dump cars	500
40-ton, wood flats	300
6-meter, French dump cars	650
French cars, miscellaneous	37
Total number of cars	4,111

Quarters for Seventy-five Families.

To meet present, pressing needs, construction has been authorized of 21 houses for Commission employes, providing quarters for 75 families. They will be located as follows: Type-14 houses, 4 at Cristobal, 4 at Gatun, 5 at Gorgona, 2 at Corozal, 3 at Ancon; type-17 houses, 1 at Culebra and 2 at Corozal. All these houses will be built by Commission forces except two at Cristobal and two at Gatun. None of the old French houses on the water front at Cristobal will be removed to make room for the new houses. Type-14 houses are the two-story, four-family buildings, each apartment being composed of sitting room and bed room, each 12 feet square, inclosed veranda at the back, 8 by 14 feet, usually used as a dining room, kitchen 8 by 10 feet, bed room 8 by 12 feet, toilet room, and front veranda. Each building costs $7,100. The type-17 houses are one story buildings arranged for one family. They cost $2,600 each and contain two rooms 14½ feet square, kitchen 9 by 10 feet, servant's room 9 by 10 feet, and an inclosed veranda 11½ by 20 feet, usually used as a dining room.

Temporary Diversion at Bridge 53.

Water that had been held in the diversion along the east bank of the Canal, making a little lake alongside the Culebra Cut from Bridge 53 two miles south, was let into a temporary diversion channel across the Canal between Bridge 53 and Haut Obispo on May 14, whence it flowed through the old French tunnel at Bas Obispo into the Chagres. This is part of the provision for draining the watershed east of the Cut during the present rainy season. The water had been held in place by the long dike of the diversion channel and was released by one of the steam shovels, which was set to work to make a breach in the wall of earth. It is estimated that 425,000,000 gallons passed through the opening and fell from a grade of 171 feet to 95 feet in a distance of 1,200 feet. It was almost a cataract, and yet so well had the plans been made to handle the great volume that not a minute was lost on the work in the Cut.

Culebra Division Offices Consolidated.

By consolidating the office force of the Culebra Division at Empire two buildings have been made to do the work that formerly required three. The office of the Superintendent of Transportation has been moved into the room adjoining the Division Engineer's office, and the clerical forces of the two offices have been combined. In another building the office of the Resident Engineer and Assistant to the Division Engineer have been combined with that of the time-keeping branch. The building formerly used as the office of the Resident Engineer will be turned over to the Department of Labor, Quarters and Subsistence.

Mail Matter for Employes.

The Postmaster in the City of New York has ruled that all first-class matter addressed to our employes on the Isthmus in care of the New York office of the Panama railroad may be re-addressed to the employes on the Isthmus without any additional postage being required, and if deposited with the Post-office Department, they will deliver same on the Isthmus.

The Postmaster further rules that all mail matter of the second, third and fourth classes, whether registered or otherwise, will not be forwarded by the Post-Office Department unless new postage is affixed, and unless this new postage is added alter the package is re-addressed, the Post-Office Department will simply hold the mail matter and send notice to the employe on the Isthmus to forward the necessary amount in stamps. He further rules that he is willing to arrange that those packages for employes which are addressed in care of the Panama railroad, 24 State St., New York, which also bear the names of the stations on the Isthmus where the employes are located, will be delivered by the Department to the Isthmus address, provided the Panama railroad signs an order directing that all such packages so addressed shall not be delivered in care of the Panama railroad, 24 State St., New York, but sent to the address of the employes on the Isthmus.

Labor Reinforcements.

Three hundred and twenty Barbadians arrived on the steamer *Magdalena* June 1, and have been distributed as follows: Culebra Division, 125; Chagres Division, 100; Division of Material and Supplies, 50; Pacific Locks, 20; Gatun Dam, 15; Motive Power and Machinery, 10. S. W. Settoon leaves June 8 for a recruiting tour of the West Indies in anticipation of the demand for more labor which it is thought the rainy season will produce.

Checking Baggage.

The officials of the Panama Railroad Steamship Company announce the following regulations in regard to checking baggage:

Passengers en route to New York from any station on the Panama Railroad, can have their baggage checked to dock 11, or through to New York, by presenting a through ticket to New York, a ticket or pass from any station to Colon or Cristobal, and a steamship ticket or pass via Panama Railroad Steamship Line, Cristobal to New York, and paying the regular transfer charge of 50 cents for each trunk, and 25 cents for smaller articles to the baggage agent. Trunks or articles which passengers desire to take into their staterooms should be checked to dock No. 11, Cristobal, and must there be claimed by surrendering checks, and advising baggage agent that such baggage is to go into stateroom, giving number of room. It should also be marked "Stateroom."

Passengers holding transportation from any station to Colon or Cristobal, and an order on the Ticket Agent, Colon, for a ticket to New York, can have their baggage checked to dock 11 only, after paying transfer charges as above, and must there claim such baggage and arrange for rechecking after regular steamship ticket has been secured, and before boarding steamship.

Ticket office and baggage room at dock 11 is open on sailing days after 11 a. m. Ticket office and baggage room close at 2.45 p. m.

Proposals for Buildings.

The Chief of the Division of Material and Supplies has advertised for proposals for the construction by contract of two, type No. 14, quarters at Gatun. Proposals will be opened at Cristobal at 2 p. m., on Monday, June 15. Each proposal must be accompanied by a certified check or bond for two hundred dollars.

Copies of plans and specifications can be obtained upon application to the Chief Engineer's office at Culebra. A deposit of five dollars (gold) will be required for each set of plans and specifications, to insure their return, at which time the deposit will be refunded.

Explosion of Dynamite Caps.

A box of blasting caps exploded in the Culebra storehouse of the Division of Material and Supplies, on May 27, and caused the death of two laborers, a Spaniard, Inocencio San Jose, aged 25 years, of Villabratima, Valladolid, Spain, and a Panamanian negro, Victoriano Gutierrez, aged 30 years. The men had been sent to the storehouse to get some caps and the Spaniard, becoming impatient with the negro's slowness in opening the box, started to knock the cover off with a machete.

Handling of Explosives.

A circular issued May 22, giving detailed instructions to be observed in the handling of explosives, has been placed in every magazine, telephone and yardmasters booth, on the inside cover of every box in which dynamite or exploders are kept, on the inside of the cover of every large tool box, and in other suitable places. A copy has been also placed in the hands of every person connected in a supervisory capacity with the storage, transportation or handling of explosives.

Stray Animal Ordinance Approved.

The ordinance providing for the impounding of stray animals, enacted by the Canal Commission, April 27, published in full in THE CANAL RECORD of May 6, was approved by the Secretary of War, May 26.

Notice has been received from the Marion Steam Shovel Company that all boilers of the Marion steam shovels will be provided with lagging, as a portion of the contract of that company. The boilers of the shovels as put in commission on the Isthmus were not covered and as a result there was unanimous complaint from the steam shovel crews on account of the heat from the boilers. The covering of the boilers will make it practicable to work inside of the shovel housing with some degree of comfort.

FOURTH OF JULY CELEBRATION.

Preliminary Arrangements made and Committees Appointed.

A meeting of the members of the Executive Committee to arrange for the celebration of the Fourth of July at Ancon, was held in the office of Commissioner Blackburn on May 30, at 9.30 a.m. There were present: Commissioners Blackburn and Smith, Messrs. E. S. Williams, W. G. Tubby, H. J. Slifer, M. A. Follman, George R. Shanton, C. B. Matthews, and H. D. Reed. Commissioner Rousseau was unavoidably absent.

The minutes of the meeting of the Committee, held May 16, were corrected to show an appropriation of $500 instead of $600 for fireworks.

Mr. Williams, Chairman of the Finance Committee, reported subscription lists received aggregating $771. Other lists aggregating about $560, were reported, making a total available (including balance from last year) of about $1,650. It was reported that many lists were still being circulated.

After considerable discussion, it was determined to offer trophies, instead of cash prizes, for athletic events, in which amateurs may compete. An appropriation of $500 was made for the purchase of trophies and distribution of cash prizes by the Committee on Amusements. A complete program of athletic events, with the prizes to be offered, will be submitted for approval at the next meeting of the Executive Committee.

Commissioner Smith, Chairman of the Committee on Entertainment, recommended that the refreshments for the ball, to be given at the Tivoli Hotel on the night of the Fourth, consist of lemonade, punch, sandwiches, salads, ice cream and cakes, and coffee. He estimated the cost of the refreshments to be $500. The recommendation was approved, and $500 was appropriated for refreshments. Commissioner Smith was also authorized to secure badges for the members of the Entertainment Committee.

A report was read from Commissioner Rousseau, Chairman of the Committee on Decorations, providing for decorating the Tivoli Hotel, athletic grounds, and roadway leading to the hotel, with palms, Chinese lanterns, bunting and flags, and specially illuminating the hotel for the dance at night. The report was approved, and $200 was appropriated for expenditure by the Committee on Decorations.

Mr. Tubby was elected Chairman of the Committee on Fireworks and authorized to organize a committee to discharge the fireworks on the night of the Fourth.

Mr. Follman, Chairman of the Committee on Music, reported that the I. C. C. and Marine bands will play during the day of the Fourth, at the athletic field and Tivoli Hotel, and the I. C. C. band will play for the dance at night. He was authorized to pay the hotel expenses of the members of both bands.

Mr. Slifer, Chairman of the Committee on Transportation, reported that the Panama railroad will provide ample train service, without charge. An early train will be run in the morning, to bring to Ancon the members of the bands and special committees. Special trains will be run at night for the accommodation of persons desiring to return immediately after the fireworks display, and also for those who will remain for the dance.

Lieutenant Matthews reported that teams from the Marine battalion will participate in special athletic events, and members of the battalion will also contest in the general events.

The next meeting of the Executive Committee will be held in the office of Commissioner Blackburn at 8.30 a. m. Friday, June 5, when additional appropriations will be made, if the funds subscribed up to that time warrant it.

The following special committees were announced:

Decorations—Commissioner Rousseau, Chairman; Lieut. C. M. Kincaid, J. B. Jeffries, P. Kuehuling, R. C. Shady, S. G. Forbes.

Entertainment — Commissioner Smith, Chairman; John K. Baxter, E. C. McFarland, Herman Gudger, D. W. McCormack, W. E. Deeks, E. A. Deems, S. C. Klauber, C. L. Bryan, M. B. DePutron, B. L. Jacobson, L. M. Walker, H. H. Baumer, M. L. Duff, Robt. E. Coleman, W. H. Frazee, jr., W. I. Beam, Ansel Brown, Irving Thomas, Jno. L. Segall, C. R. Geddes, Fred Stanton, M. H. Gilliman, J. C. Whittaker, B. L. Kearney, E. L. Thompson, W. F. Shipley, Chas. F. Hagemann.

Fireworks—W. G. Tubby, Chairman, Sergeant Newton G. Garrett, Privates McClellan J. Crouse, Harry E. Leland, Elmer Downey, Albert F. Doll, J. I. Doherty, Charles Simmons, Michael Grill and W. J. Barnes.

Transportation—Mr. H. J. Slifer, Chairman; J. A. Smith, R. W. Bergin, F. R. Blunt, F. W. Fitch, Conductors Reynolds and Thompson, R. Budd, P. G. Baker, W. G. Tucker, H. L. Stuntz, R. H. Wardlaw, W. J. Rodman, John Burke, C. H. Guckel, R. Yung, E. L. Hubbard.

Music—Mr. M. A. Follman, Chairman; Lieut. Matthews and C. E. Jennings.

Marines—Lieut. Matthews, Chairman; Lieutenants Kipp and Waller.

Publicity—Mr. H. D. Reed, Chairman; Messrs. Wm. Krugel and Robert Coe.

The names of the members of other subcommittees will be announced at the next meeting of the Executive Committee.

Improvements in Caledonia.

Extensive improvements are contemplated on the land owned by the Panama Railroad Company in the districts of Guachapali and Santa Cruz, Panama, the portion of the city east of the railroad and commonly known as Caledonia. In anticipation of the water and sewage systems, street grading and paving and other work to be done in this section, there has been a demand from the residents for information in regard to placing their houses so as to have them conform to the proposed street lines and grades and lot lines. A committee composed of J. G. Holcombe, Division Engineer, Division of Municipal Engineering; Dr. R. E. Noble, General Inspector, Department of Sanitation, and R. Yung of the Land Department of the Panama railroad, was appointed to investigate and report on the matter. Their report, submitted, on May 16, 1908, has been approved by the Chairman and Chief Engineer, and is as follows:

1. The Panama Railroad will be authorized to make leases for lots, as designated in the plan submitted by the Division of Municipal Engineering for the supervision of these districts, with the proviso that all buildings erected upon leased lots shall be upon building lines and upon the grades as established by the Division of Municipal Engineering, and that all buildings erected thereon must face the street; and also, not more than one building, which must be continuous and must be used for family or business purposes, shall be on any one lot.

2. There shall be a clear space at the rear of each lot of thirty feet; the only building to be erected within this area to be a sanitary closet and this shall be removed at least six feet from the rear line of such lot and fifteen feet from the rear of the building where the same is an earth closet.

3. All pits, or earth closets, and all buildings erected upon these lots, must be subject to, and with the approval of the Sanitary Department, and all existing buildings shall not be removed nor altered without said approval.

4. All leases for certain designated lots shall be referred to the office of the Division of Municipal Engineering to indicate thereon the grade and amount of filling required to place these in a sanitary condition in relation to the proposed streets to be built in the future.

5. None of these instructions are to be construed as limiting the authority of the Panama railroad to lease one or more lots to any individual; or allowing one house to occupy more than one lot.

6. Size of buildings, number of stories thereof, etc., to be in the discretion of the Panama railroad.

Output of Vegetable Gardens.

The output of vegetables from the Commission gardens at Empire, Corozal and Ancon during the month of May was as follows:

Tomatoes	5,257 pounds
Beans	744 pounds
Egg plant	175 pounds
Cucumbers	626 pounds
Cabbage	285 pounds
Lettuce	3,006 heads
Green onion	100 pounds
Radishes	23 pounds
Carrots	24 pounds
Red beets	100 pounds

OFFICIAL CIRCULARS.

Chief Engineer—Panama Railroad.

PANAMA RAILROAD COMPANY,
OFFICE OF GENERAL MANAGER.
Colon, R. P., May 28, 1908.

Effective, June 1, 1908, Mr. R. Budd is appointed Chief Engineer; the position of Engineer of Maintenance and Construction being abolished.

HIRAM J. SLIFER,
Assistant to President and General Manager.

Approved:
GEO. W. GOETHALS,
President.

Acting Master Mechanic, Empire Shops.

OFFICE OF THE SUPERINTENDENT OF
MOTIVE POWER AND MACHINERY.
Culebra, June 1, 1908.

TO ALL CONCERNED:

Effective June 1, 1908, Mr J. H. Moriarty will perform all the duties of Master Mechanic at Empire Shops, during the absence on leave of Mr. W. O. Johnson, and his authority as such will be respected accordingly.

(Sgd.) GEO. D. BROOKE,
Supt. M. P. & M.

RECORD OF EXCAVATION SINCE AMERICAN OCCUPATION.

MONTHLY TOTALS BY CUBIC YARDS, PLACE MEASUREMENT.

BY DREDGES.

COLON.

Mos.	1905*	1906*	1907		1908	
	Outside Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Can'l Prism
Jan.....	....	90,700	....	111,100	444,403	46,298
Feb.....	....	105,500	....	110,002	401,887	25,835
Mar....	....	126,650	....	84,145	515,223	31,663
April...	....	87,200	....	69,889	496,366	....
May ..	60,700	64,875	....	133,847	564,386	....
June ...		73,500	17,000	107,118	....	....
July....	58,050	69,000	104,322	5,600	....	....
Aug....	53,183	54,000	189,170	5,127	....	....
Sep.....	48,837	123,540	403,842	....	....	....
Oct. ...	48,800	111,020	409,632	5,488	....	....
Nov	38,000	63,260	417,297	5,500	....	....
Dec	92,250	58,400	428,053	14,782	....	....
Totals	399,820	1,027,645	1,969,316	652,598	2,422,265	103,796

Total to June 1, 1908—6,575,440 cubic yards.

* No work done inside of Canal Prism.

LA BOCA.

Mos.	1905*	1906*	1907		1908	
	Outside Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Can'l Prism
Jan.....	....	95,940	....	94,710	460,250	....
Feb.....	....	95,940	....	93,480	663,519	....
Mar....	....	116,820	....	92,319	783,281	....
Apr	....	110,700	....	104,855	676,539	....
May ..	....	112,340	....	122,157	530,466	....
June ...	50,676	62,697	64,352	69,223	....	....
July....	41,533	98,400	108,338	....	....	....
Aug....	54,530	111,930	168,284	....	....	....
Sep.....	114,308	105,780	144,625	9,350	....	....
Oct	81,836	97,170	357,122	....	....	....
Nov	71,176	92,988	365,423	....	....	....
Dec... .	71,094	90,528	349,551	....	....	....
Totals	485,153	1,191,233	1,557,695	586,094	3,114,055	....

Total to June 1, 1908—6,934,230 cubic yards.

* No work done inside of Canal Prism.

Grand total by dredges to June 1, 1908—13,548,095 cubic yards, including 38,425 cubic yards at Gatun dam site in 1907.

BY STEAM SHOVELS.

GATUN.

Locks. Dams and Spillways.

Mos.	1906*	1907		1908	
	From Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan..........	....	47,539	....	193,567	98,588
Feb....	....	70,177	... .	176,291	106,506
Mar..	....	100,151	....	202,763	171,835
Apr.....	....	103,459	....	196,109	177,347
May.........	....	70,528	....	138,815	127,932
June..	....	71,181	3,832	....	....
July	....	59,537	14,628	....	....
Aug..........	....	78,357	26,866	....	....
Sep..........	....	87,423	36,315	....	....
Oct..........	3,055	136,777	40,236	....	....
Nov..........	11,517	121,635	40,987	....	....
Dec..........	12,056	160,795	69,756	....	....
Totals	26,628	1,107,559	232,620	907,545	682,208

Total to June 1, 1908—2 956,560 cubic yards.

* No work done outside of Canal Prism.

PACIFIC DIVISION.

Locks. Dams and Spillways.

Mos.	1908		1909	
	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism
Jan.....	....	7,203	....	....
Feb	385	38,661	....	....
Mar....	5,231	67,963	....	....
Apr.....	6,682	92,261	....	....
May ..	19,080	54,969	....	....
June ...	....	....	....	....
July....	....	....	....	....
Aug. ...	....	....	....	....
Sep.....	....	....	....	....
Oct. ...	....	....	....	....
Nov	....	....	....	....
Dec.....	....	....	....	....
Totals	31,378	261,057	....	....

Total to June 1, 1908—292,435 cubic yards.

CULEBRA DIVISION.

Mos.	1904	1905	1906	1907	1908
Jan... .	....	70,650	120,990	566,750	1,227,022
Feb.....	....	75,200	168,410	639,112	1,248,265
Mar....	....	132,840	239,178	815,270	1,290,885
Apr.....	....	126,749	213,177	879,527	1,242,574
May ..	27,556	75,935	196,209	690,365	960,840
June ...	32,551	76,905	212,623	624,586	....
July ...	31,599	78,570	159,789	770,570	....
Aug....	35,056	49,210	244,823	786,866	....
Sep.....	25,220	44,085	291,452	753,468	....
Oct	19,695	52,940	327,009	834,499	....
Nov ...	28,860	60,540	221,642	790,632	....
Dec	42,935	70,630	307,689	1,025,485	....
Totals	243,472	914,254	2,702,991	9,177,130	5,969,586

Total to June 1, 1908—19,007,433 cubic yards.

CHAGRES DIVISION.

Mos.	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan	....	....	169,447	....
Feb.....	....	....	200,145	....
Mar....	....	....	324,233	....
Apr.....	....	....	329,483	....
May ...	....	....	235,902	....
June...	... .	....	....	....
July ...	....	....	....	....
Aug....	2,900	....	....	....
Sept ...	21,546	....	....	....
Oct	25,627	....	....	....
Nov....	44,044	....	....	....
Dec. ...	98,652	....	....	....
Totals	192,769	....	1,259,210	....

Total to June 1, 1908—1,451,979 cubic yards.

COLON DIVISION.

Mos.	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan	....	....	62,835	....
Feb..............	....	....	65,632	....
Mar..............	....	....	81,850	....
Apr..............	....	....	67,436	....
May.	....	....	54,333	....
June..............	....	....	....	....
July..............	731	....	....	....
Aug..............	15,257	....	....	....
Sep..............	28,837	....	....	....
Oct..............	41,078	....	....	....
Nov..............	40,003	....	....	....
Dec..............	46,945	....	....	....
Totals........	172,851	....	332,086	....

Total to June 1, 1908—504,937 cubic yards.

Grand total by steam shovels June 1, 1908—24,332,437 cu. yds., including 78,233 cu. yds excavated at La Boca Locks and Dams in 1907, and 40,860 cu. yds. from Cardenas Hill, in March, April, and May 1908.

Grand total by steam shovels and dredges to June 1, 1908—37,880,532 cubic yards.

FRENCH AND AMERICAN RECORDS.

	FEET
At barrier on Contractor's Hill..... ....about	140
At Bas Obispo.......	45

	CUBIC YARDS
Amount excavated under American control:	
In Culebra Division (Canal prism) to June 1, 1908	19,007,433
Total excavation at all points under American control to June 1, 1908..	37,880,532
Total excavation by the French at all points and including diversion channel................... about	81,548,000

	FEET
Highest elevation on new center line of Canal before excavation began by the French:	
At Culebra........ ......312 | At Bas Obispo......	233
Greatest depth of excavation by the French:	
On I.C.C. Canal axis: at Culebra, 161; at Bas Obispo	148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-feet level Canal:	
At Culebra—at same point as before.....................	111

SOCIAL LIFE OF THE ZONE.

Memorial Services Mark the Celebration of Decoration Day.

Preparations were made and carried out by the Empire chapter of the Army and Navy Union, Goethals Garrison No. 106, for a fitting celebration of Decoration Day. The members of the Garrison went to Panama on the morning train and marched in a body, headed by the commander, C. H. Mead, to the Protestant chapel in the Ancon hospital grounds where service was held in memory of the late Joseph P. Roach, whose death occurred at Caimito Mulato, on the afternoon of May 22. The Ven. Archdeacon H. B. Bryan officiated at the service and delivered the memorial address. Afterwards the Rt. Rev. A. W. Knight, D. D., Bishop of Cuba, spoke briefly on the trend of the times towards universal peace; of the work of the army in Cuba, sent for the pacification, and withdrawn when its work was accomplished, and of the great work here, which he called "a great work of peace, under the Secretary of War."

The garrison's flag rested before the chancel rail and the service throughout was of a national character. From there, the garrison marched to the mortuary chapel, where the military service was held by the chaplain. The U. S. Marines stationed at Camp Elliott were represented by a firing squad who gave the three volleys over the bier.

Later in the day a committee from the garrison was detailed to go to Dead Men's (Flamenco) Island in Panama bay, where the graves of thirty or forty sailors and marines who died here in service some years ago are situated The committee found the graves in a neglected condition and after doing what was possible to make them presentable, small flags were placed on them. It is the further work of this committee to ascertain what can be done toward the restoration of these graves and the erection of a small monument and provision for a flag to be raised on all national holidays.

The Goethals Garrison of the Army and Navy Union was organized in October of last year and has a membership of sixty. Its headquarters are Empire, where the meetings are held weekly. The officers are as follows: C. H. Mead, commander; C. O. Dickerson, senior vice-commander; W. H. Browning, junior vice-commander; J. H. Cash, adjutant; B. O. Miller, chaplain. S. F. Richardson, officer of the day; O. F. Lampson, officer of the guard; T. O'Connell, officer of the watch.

The garrison is organized in connection with the Army and Navy Union of the United States, and comprises all men who have seen honorable service in the United States army or navy. An extract from their "Charter Perpetual" reads as follows:

> Under the provisions of the incorporation the Army and Navy Union, U. S. A., perpetual and everliving, will be on hand as the years roll by to place the laurel wreath on the graves of the Grand Army Veterans, as it will on the grave of the Spanish American War Veterans, who represented a reunited nation on Battlefield and Battleship. In other words, the Army and Navy Union will hold itself forever the guardian of the memory of the Soldiers and Sailors of 1861 and 1898—and all who have defended the honor of our country.

Steps are being taken to organize a ladies' auxiliary which will work under the jurisdiction of the local garrison. All women whose fathers, brothers, or husbands have been in the service of the United States Army or Navy are eligible for membership in the auxiliary as are also army nurses.

The initiation fee is five dollars and monthly dues fifty cents. Applications are constantly being sent in and the garrison expects to increase its membership very materially within the next few months.

At Cristobal, the Army and Navy Union held memorial services at Mount Hope, and the graves of soldiers and sailors buried there were decorated. Camp Elliott sent a detachment of marines to participate with the Union in the services.

At Camp Elliott, there were services at the Marine cemetery, the graves were decorated, and at the close of the service the soldiers' salute was fired.

The Culebra Woman's Club held its annual meeting last week with a full attendance. The club has, since its reorganization, been on a sound working basis and the recess is thought to be the best means of giving the members time for the preparation of the work for the coming year. Regular meetings will be resumed on the last Thursday in September, when election of officers for the year will take place.

Several committees were appointed to act during the summer. A special petition will be made for a mail box to be placed at the railroad station for the convenience of those living at a distance from the post office. Under the educational department, Mrs. Sumner Coolidge, chairman, the club will take up the study of Mexico and other Spanish speaking people and countries. Flowers are always provided for the club members in the hospital or who are ill at their homes, by the visiting committee who has its work well in band. It is the general feeling in the community that the Woman's club has done much to add to the social and public life and the efforts of its members have been met with invariable sympathy and appreciation.

At the annual meeting of the Empire club, on May 20, the president, Mrs. Frank W. Miracle, presided. There will be a called meeting of the club about the third week in June, when the heads of departments for the year will be appointed and the work arranged. A calendar committee will take charge of the programs and the next year promises to be one of special interest. Meetings will be held in July and August, the date to be determined later, when the neighboring clubs will be entertained and programs given.

The Empire club has employed home methods to bring itself high in public favor. Entertainments for the bachelors, lectures and talks on domestic and local matters, mothers' meetings, which form a part of the work of every woman's club with similar aims and objects, study and music, have during the present year been the major part of its work. There is no reason to think that the club will alter a policy, which has carried it successfully through the first year of its existence.

The Empire public school will give an entertainment on June 8 in the school building when a program arranged by the teachers will be given together with a sale of cakes, home made candies and pies. The proceeds will be devoted to the school library in which the residents of Empire are much interested. A midday luncheon will be served to the bachelors.

Encouraged by the success of the recent sale, the members of St. Mary's Guild at Empire will hold another sale, on Thursday afternoon, June 4, in the Commission club house. Fancy articles, aprons, laundry bags, and other useful articles will be sold, as well as cakes and home made delicacies. The workers toward the erection of a church building have already a fund of nearly two hundred dollars toward the purpose.

The educational department of the Ancon Woman's Club met at the residence of Mrs. Charles Boxer, on the afternoon of May 27, with a good attendance. In connection with the library project undertaken by this department, readings were selected from literature on the subject which had been sent by the United States Commissioner of Education, the American Library Association, and the League of Library Commissioners, relative to the best means of establishing and maintaining a public library and reading room. A discussion followed the readings. It is the idea of the department to establish a public library for Ancon, which shall include reference books for the use of teachers and others and an annex for boys and girls.

A wish was expressed that the Ancon and Panama clubs, churches, schools and residents will co-operate with the Ancon Woman's Club in bringing the enterprise to a successful issue. The department of education will meet at the residence of Mrs. Payne, June 10.

The Initativory Euchre Club was recently organized at Las Cascadas and will have weekly meetings at the homes of the members. The first meeting was held on Wednesday evening, May 27, at the residence of Mr. and Mrs. Stocchini. The ladies' prize was won by Mrs. W. M. Boyer and the men's by Mr. A. N. Naylor. Refreshments were served later in the evening.

OBITUARY.

Frank Rech, a foreman in the Department of Municipal Engineering, died at Ancon hospital, on May 26, after an illness of two months. He was 56 years of age and had been on the Isthmus 3 years and 7 months. Among his surviving relatives is a brother living in Philadelphia.

Miss Ada Jane Nice, of the Ancon hospital staff of nurses, died at the hospital, May 29, after a long illness. This is the first death that has occurred among the nurses in the Isthmian service. The funeral was held at the Ancon Protestant chapel on the afternoon of May 30, the Rev. Edward J. Cooper, rector of Christ Church, Colon, conducting the service. The staff of nurses attended in a body and the internes acted as pall bearers. Miss Nice came from Riegelsville, Pa., and was a graduate of the Homeopathic Hospital, Philadelphia. She had been in the Isthmian service one year.

Arthur O. Caswell, of Jacksonville, Fla., an employe of the Isthmian Canal Commission on the gold roll, was killed on the Panama railroad at Gorgona, June 1. He was 19 years of age, and had been on the Isthmus 9 months, his quarters being in house 126 at Gorgona. His father lives at Bas Obispo.

STORAGE AND HANDLING OF EXPLOSIVES.

Magazines at Mindi and near Gamboa Bridge.

Two stations for the storage of explosives have been authorized, one to be located near Mindi and the other near Gamboa Bridge. They will take the place of the magazines at Gold Hill and Bas Obispo, and will be used as feeders to the service magazines of the various divisions. Each station will comprise a dynamite magazine with a capacity of 300 tons, a detonator house, and a house for a watchman. When the storage stations are ready for use the supplying of explosives will be reduced to a system that will insure an amount sufficient for one month's work plus 25 per cent. in the service magazine of each division; one month's supply for the entire work plus 50 per cent. in the two storage magazines, and one month's supply in transit from the United States. Practically enough explosive to meet all demands for three months will thus be kept on the Isthmus, so that even an accident to that in transit would not delay the work. On the other hand it is deemed advisable not to carry more than a three months' supply, and that well distributed, as the loss in case of an explosion would thus be reduced to the least point consistent with continuous and effective work.

Already a spur is being run from the Panama railroad at Mindi to the site selected for the station near that place. This site is one and a half miles southeast of the Mindi Spur, surrounded by a number of hills. By placing it in a hillside the entire back and both sides of the dynamite magazine will be protected by earth, and the front will face in a direction that will insure Gatun, Mt. Hope, Cristobal and Colon against damage should an explosion occur. Additional advantages of this site are that but little cutting and filling will need to be done in order to connect it with the railroad, the estimated cost of the spur being only $18,000; and that the magazine located on it will be permanent. The second magazine will be on the Chagres Division, on the east side of the Canal, 9,000 feet from the Gamboa bridge, at an elevation of 90 feet above mean sea-level and behind a range of hills 175 feet high, which will protect Bas Obispo and Matachin in case of an explosion. One plan will be used for the buildings at each station. The magazine will be so separated from the detonator house that an explosion in one will not affect the other. For a hundred yards around the buildings all the undergrowth will be removed and the ground will be kept bare; and a broad zone will be marked off around each station in which it will be forbidden even to carry a firearm.

Hollow concrete blocks, 12 inches thick, will be the material used in the walls of the magazines and detonator houses. Tests have demonstrated that this material is proof against a stray bullet and yet not so hard or tough as to become a missile in case of an explosion, as it will disintegrate like brick. A 3-inch layer of concrete reinforced with old Belgian rails and waterproofed will form the roof, which is to serve the double purpose of keeping the explosives dry and cool. The floor will be a 3-inch layer of concrete, on top of which 2-inch planks will be laid loose. Lightning rods will protect these buildings.

The dynamite magazines will be 112 feet long, 48 feet wide, and 9 feet high inside. The roof will be supported by the walls and by posts from 12 to 14 feet apart. It will be very flat, the pitch from the center to the walls being only 2 feet, 3 inches in 24 feet. Two wooden doors, 7 feet 9 inches by 4 feet, cased in sheet iron, will open in the front; and two windows, 1 foot by 18 inches on each end of the building, 5 feet 6 inches above the floor, will supply light. Ventilation will be provided by air flues opening near the roof. The interior will be one large room in which 300 tons of dynamite can be stored in boxes piled not more than 7 high.

The detonator houses will be of the same construction as the magazines except that they will have a double roof consisting of a ceiling of reinforced concrete and a wooden roof covered with corrugated iron. They will be 33 feet 6 inches long, by 17 feet 3 inches wide, and 10 feet high inside. In one of the narrow ends will be a door 7 feet by 4 feet, and opposite it a small iron window.

A watchman, who must be a married man, will be placed in charge of each station. A frame house with all conveniences and a screened veranda will be provided near the magazine for his use.

Club Notices.

At the meeting of the Pacific Masonic Club, at the Hotel Tivoli, Saturday, May 30, the following officers were elected by acclamation: Judge H. A. Gudger, president; Geo. L. Campen, vice-president; Rollin S. Stiles, secretary-treasurer; Wm. E. Roessner, assistant secretary-treasurer. Judge Gudger made an address on the object and uses of Masonry, after which the club adjourned to the cemetery to distribute flowers. The regular meetings of the club will be held on the first and third Saturdays of each month. There will be a meeting of the club at the Hotel Tivoli, on Saturday evening, June 6, at 7.30, for the purpose of discussing the question of the club participating in the Masonic rally, to be held on St. John's Day. Every Mason on the Isthmus is invited and it is desired to have Ancon well represented.

To All Master Masons

The celebration of St. John's Day will take place on Sunday, June 21, at Taboga Island. A special train will leave Colon at 6 a. m. All Masons wearing the badge for the occasion, accompanied by their families, will be admitted aboard the special at all principal stops en route to La Boca.

Badges can be procured from Brothers J. B. Fields, Las Cascadas; J. T. Woods, Culebra, J. R. Strock, Gorgona; J. W. Johnson, Paraiso; L. S. Garske, Gatun; H. A. Haywood, Empire, and Styles, Ancon.

All Masons with their families are cordially invited to take part in the celebration. Ladies will prepare and carry only a light basket lunch, as the heavier lunch will be provided by the committee.

The Paraiso slide is still moving but two shovels working night and day have managed so far to take out the dirt as fast as it encroaches on the shovel cut.

PERSONAL.

Mr. C. L. Chester will deliver an illustrated travel talk with stereopticon and moving pictures, under the auspices of the Ancon Amusement Association, at the Metropole Theatre in Panama, on Wednesday, June 3, at 8.30 p. m., Panama Railway time. His subject will be "Ecuador–Peru–Bolivia." Mr. Chester, who is one of the most popular lecturers of his class in the United States, is spending several weeks on the Isthmus, gathering material for a new lecture on the Panama Canal. He has for several years been delivering a lecture on this subject with stereopticon pictures, and has come to the Isthmus to obtain new material for a revised version of it.

Rt. Rev. Albion W. Knight, D. D., Bishop of the Protestant Episcopal missionary district of Cuba, arrived on the Isthmus on May 28, for the purpose of familiarizing himself with the work in this part of his diocese. At Ancon Protestant Chapel, May 30, he delivered the Memorial Day address, and the following day conducted the regular Sunday service. He left for New Orleans, June 2, on the *Ellis*

J. B. March, District Judge of Gorgona, and Miss Leonora Steinkrans of Tipton, Missouri, were married May 26, at Cristobal by Chaplain William Pearn. Judge March and his bride have taken up their residence at Gorgona.

Mrs. George Noble, who has been visiting her son, Dr. Robert E. Noble, in Ancon during the winter, sailed for New Orleans on the *Ellis*, June 1, to return to her home in Anniston, Ala.

Mrs. P. S. McCormick, of Colon, returned to the Isthmus on the *Ellis* on May 28, after a visit of four months to her home in New Orleans.

Among the passengers on the *Finance* which arrived at Cristobal on June 2, were: Mrs. E. J. Williams of Empire; Dr. L. J. Rausbottom of Bas Obispo; Dr. Alfred G. Farmer of Colon Hospital; E. J. Thomas and Geo H. Wolbrecht.

The office of the Paymaster at Ancon was moved from the old Administration Building, Panama, to the new Administration Building at Ancon, on Friday, May 29. The only offices now remaining in the old building are: Division of Municipal Engineering, Division of Meteorology and River Hydraulics, Water Commissioner, Stationer and Printer and Health Officer of Panama.

An employe of the Isthmian Canal Commission, on the gold roll, pulled the air brake cord on a Panama railroad train the night of May 30, in order to stop the train at Paraiso, although Pedro Miguel was the nearest scheduled stop. The matter was brought to the attention of the authorities and the offender was discharged from his position without the benefit of accrued leave of absence.

Information is wanted in regard to William Weiss, who is supposed to have been employed at La Boca or vicinity as an engineer. Any information in regard to him may be sent to Mr. Charles Kittel of Gorgona, C. Z., who knows something to his advantage.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

A Club House for Ancon.

THE CANAL RECORD:

Permit me to call your attention to the lack and need of a Y.M.C.A. at Ancon or in Panama. The objection so often urged that the Hotel Tivoli takes the place of a club house is not a valid one because most of the employes in Panama do not take their meals at the Tivoli and feel that it is too far away to go to in the evening after the day's work. And, if they went there, they would find none of the freedom of a club house, no gymnasium, no library and reading room. The men in the Government employ in Panama need a club house whose privileges are within the reach of everyone, and I would like to call the attention of the authorities and the Y. M. C. A. organization to this need.

EMPLOYE.

Panama, May 15, 1908.

Cristobal Lodge No. 2, I. O. O. F.

THE CANAL RECORD:

The institution of Cristobal Lodge No. 2, I. O. O. F., took place at Cristobal on the evening of May 16. B. F. Sisson, District Deputy Grand Sire was in charge of the proceedings, assisted by Past Grands C. H. Meade of Banner Lodge No. 123, Marshalltown, Ia.; Henry W. Lotz of Connorsville, Ind.; William Rush of Monument Lodge No. 421 of Pittsburg, Pa.; B. F. Henkle, of Isthmian Canal Lodge No. 1, formerly of Des Moines, Ia., and H. L. Ferguson of Greenville Lodge No. 94 of Greenville, Miss.

Isthmian Canal Lodge was in attendance and initiated 27 new members and conferred the degrees. The following officers were elected and installed: W. H. Storm, Noble Grand; J. S. Mansfield, Vice Grand; W. S. Lawrence, secretary; James Daley, treasurer. After the meeting was adjourned refreshments were served.

B. F. SISSON,
District Deputy Grand Sire.

Gorgona, May 21.

Panama Gold for Medals.

THE CANAL RECORD:

I agree with "Eligible" in having silver medals for two-year men. But for four-year men a medal of Panama gold with a sketch of the Panama Canal on one side and the American flag, the holder's name and position together with any other suitable emblem of the United States, on the opposite side.

Come now, all you four-year-olds, start a petition or something to assist in getting a medal that we will be proud to wear all the time.

WM. BODETTE,

Empire, May 23.

Prefers a "Junk" Medal.

THE CANAL RECORD:

In reference to the medals which it is proposed to give us "two-year-fellows," I would suggest that the gentlemen who are in charge of the matter have their way and stand by the "Old Junk" proposition, as "Eligible" calls it.

Silver half-dollars are too common and too trafficky for such a noble purpose. We have one man at home who is reputed to be the owner of six hundred million of them. Another man at home owns a like amount and is doing his best to try and get rid of most of them in order that he won't die "rich." The silver half-dollar has neither novelty nor sentiment. The old French junk when in the form of medals will have both. I would not take ten half-dollars for the little piece of "French junk" which I lost in New York last July.

CHECK NO. 35,434

Gatun, May 25.

CANAL EXPENDITURES.

The following table shows expenditures for Canal work, classified monthly, since July 1, 1907. The figures give only expenditures which have been located. In addition, there have been some disbursements, such as purchasing material, etc., which it will not be possible to locate to a specified account until their use has been finally determined:

Period.	Civil Administration.	Sanitation.	Construction and Engineering.	Municipal Improvements.	Plant Account.	Total.
Prior to Jul. 1 1907	$1,427,915.15	$4,584,969.15	$13,396,576.05	$4,181,326.83	$19,110,758.96	$42,701,546 14
July..	51,183.84	149,270.94	962,477.19	146,131 93	580,562.68	1,889,626.58
Aug..	67,548.53	214,018.03	1,196,803.45	192,227.75	767,153.24	2,437,751.00
Sep...	63,239.62	253,108.77	1,194,304 85	107,840 85	1,068,300.58	2,686,794.67
Oct...	53,227.97	189,196.38	1,372,311 81	123,939 88	1,131,450.91	2,870,126.95
Nov..	54,529 02	166,381 82	1,217,120.31	115,625 44	1,105,590.16	2,659,246.75
Dec..	64,903.04	213,725.16	1,369,822.79	125,420 96	591,298.02	2,365,169.97
1908						
Jan...	66,802 92	221,866.30	1,468,021.44	156,956.22	1,584,821.98	3,498,468.86
Feb..	72,514.14	174,076.77	1,523,011.72	100,700.40	889,405.82	2,759,708 85
Mar.	63,653.60	165,311.77	1,460,229.91	110,232 15	1,307,321.82	3,106,749.25
Apr..	74,046.55	178,041.65	1,580,416.19	138,115.21	797,137.63	2,767,757 23
Tot'l	$2,059,564 38	$6 509,966 74	$26,741,095 71	$5,498,517.62	$28,933,801.80	$69,742,946 25

WEATHER CONDITIONS, CANAL ZONE, MAY, 1908.

Stations.	Pressure (reduced to mean of 24 hours).	Temperature.					Mean relative humidity.	Precipitation.			Wind.			
		Mean.	Maximum.	Date.	Minimum.	Date.		Total.	Days with .01, or more.	Average since station established.	Total movement (miles).	Prevailing direction.	Maximum velocity in miles.	Date.
Cristobal.	29.86	79	89	31	71	15	90	22 49	28	11.26	4,950	n.	36	19
B. Obispo.	29.85	79	91	7	68	15	94	13.18	28	10.69	2,726	n.w.	19	3
Ancon.....	29.85	81	93	26	71	14	88	7.64	21	8.50	4,742	n.w.	25	27

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

ATHLETIC MEET AT GORGONA.

In the athletic meet, held by the members of the Young Men's Christian Association, at Gorgona on Decoration Day, Culebra won first place with 7 first, 4 second, and 3 third places to its credit—a total of 50 points; Cristobal was second with one first, 5 seconds and 5 thirds—a total of 25 points; and Gorgona was third with 1 first and 1 third—a total of 6 points. The field was very heavy, caused by the recent hard rains.

The events were started on time, and followed each other promptly. There were about four hundred spectators present, and the I. C. C. band gave a concert during the meet. The officials were: C. E. Anderson, referee: A. R. Richards, starter; L. F. La Rose, clerk of course; F. C. Freeman, scorer, assisted by a staff of field officials.

The winners in the various events were as follows:

100-yard Dash—Hertz, Culebra, first; time, 11 1-5 seconds. Weller, Cristobal, second; Culbertson, Cristobal, third.

220-yard Dash—Hertz, Culebra, first; time, 27 2-5 seconds. Weller, Cristobal, second; Luce, Cristobal, third.

440-yard Dash—Weller, Cristobal, first; time, 63 2-5 seconds. Ham, Culebra, second; Hertz, Culebra, third.

880-yard Run—Ham, Culebra, first; time, 2 minutes, 40 3-5 seconds. Burton, Culebra, second; Pring, Cristobal, third.

12-pound Shot-Put—Herring, Culebra, first; distance, 44 feet 1½ inches. Weller, Cristobal, second; Hertz, Culebra, third.

Running High Jump—Ferris, Gorgona, first; height, 5 feet 5 inches. Fletcher, Cristobal, second; Oliver, Culebra, third.

Running Broad Jump—Hertz, Culebra, first; distance, 19 feet 9½ inches. Shelton, Culebra, second; Fletcher, Cristobal, third.

Pole Vault—Hertz, Culebra, first; height, 9 feet; Oliver, Culebra, second; Fletcher, Cristobal, third.

Relay Race—Culebra, first; time, 3 minutes 26 1-5 seconds. Cristobal, second; Gorgona, third.

CRISTOBAL.

Standing of the three-men bowling tournament on May 29:

	Pinfall	*Games played*	*Games won*	*Games lost*	*Per centages*
M. & S. Ben'd's	5684	12	10	2	833
P. R. R. Shops..	4489	9	6	3	666
Commissary.....	4136	9	6	3	666
Carpenters	4372	9	5	4	555
P. R. R. Office...	5678	12	6	6	500
Imperials.........	5518	12	6	6	500
South Paws.....	5371	12	4	8	333
M. & S. Bach's.	4025	9	3	6	333
Mount Hope....	4958	12	2	10	166

The following scores of 200 or over were made during the past week: Whitley, 231: Barte, 227; J. Thomas, 224; Bedell, 212; Bordelson, 209; Robertson, 207; Stickel, 204; Wolf, 203; Luce, 202; Strong, 200

A recent study of our membership shows that 47 per cent of our members are engaged in mechanical and outside work.

The officers of the U. S. cruiser *Albany* have been invited to contest, with foils or broadswords with Mr. W. J. McSparren, fencing instructor. The members are showing great interest in it, and it is hoped that definite arrangements can be made for the match.

The Sunday Club has the following speakers engaged: June 7, Mr. F. G. Mixer, of the International Correspondence Schools; June 14, Dr. Bade, of Berkeley Seminary, California.

EMPIRE.

The three illustrated lectures on "The U. S. Navy," "The U. S. Army," and "Peru," given May 18 and 25, and June 1, respectively, by Mr. C. L. Chester, were much enjoyed by the members and friends of the Empire Y M. C. A

The first-team bowling league of seventy-two games will begin June 20. Mr. Frank F. Dougherty has been elected captain of the Empire team. New bowling balls have been ordered, and a request for the repairing of the alleys has been issued.

Many of the men of Empire have manifested their desire for a local duck-pin tournament, and it is expected that one will be organized within a few days.

COMMISSARY DEPARTMENT.

New Blend of Coffee.

The coffee roasting plant of the Commissary department; which has been in successful operation for the past few weeks, has produced a blend of coffee especially for family use. It is called Commissary Blend No. 2, will be sold for 25 cents per pound and will be delivered on order after June 3. The Commissary officials consider it equal to the grade of coffee shipped from New York, and for which 35 cents per pound is charged.

After this date the full list of commissary prices for cold storage and other articles will be published in THE CANAL RECORD *only in the first issue of each month. There will be published in each issue a list of the changes in prices, and also a list of new articles.*

COMMISSARY PRICES

For week ending June 3:

FRESH MEATS.

		Price cts
Beef—Sirloin roast	per lb	28
Rump roast	do	28
Porterhouse	do	28
Rib-roast, short-cut, (not under 3½ pounds	do	20
Rib-roast, second cut	do	17
Chuck-roast	do	13
Soup	do	7
Stew	do	12
Corned	do	10, 12 14
Suet	do	4
Steaks—Sirloin	do	28
Porterhouse	do	28
Rump	do	28
Round	do	20
Veal—Loin	do	23
Entire forequarters	do	11
For stewing	do	11
Mutton—Entire forequarters	do	9
Short-cut chops	do	20
Leg	do	18
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	30
Legs	do	28
Pork—Cuts	do	20

MISCELLANEOUS

Livers—Beef	per lb	10½
Livers—Calf	each	60
Sausage—Pork	per lb	16
Bologna	do	15
Frankfurter	do	15
Sweet bread—Veal	each	1.20
Beef	per lb	25
Tripe, pickled, Honeycomb	do	12
Pigs' feet	do	11
Ox tongues	each	90

POULTRY AND GAME.

Chickens, dressed (milk-fed)	each	1.30
Chickens, large	do	1.50
Fowls	do	*1.16
Ducks, fatted (fancy)	do	*1.07
Suckling pigs	do	4.90
Turkeys	per lb	28
Squabs	do	45
Broilers (chicken frys)	each	90
Eggs, fresh	per doz	28
Geese (10 lbs)	each	2.00
Capons	each	2.40

CURED MEATS AND LARD.

Bacon—Strips	per lb	23
English breakfast, sliced	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Westphalia	do	45
Whole, Ferris	do	19
Tropical	do	18

DAIRY PRODUCTS.

Butter—prints, prime quality	per lb	*35
Cheese—Cream, Phila	each	22
Neufchatel	do	6
Roquefort	per lb	45
Young America	do	22
Swiss	do	33
Gouda	do	34
Edam	each	1.05
Camembert	do	28
Pinxter's	tin	22
McLaren's	jar	15
Milk, Briarcliff	quart	**25
Buttermilk	bot	**15

FRUITS AND VEGETABLES.

Pineapples	each	15
Oranges	per doz	12
Grape Fruit	each	4
Limes	bun	70
Lemons	per doz	15
Beets	per lb	6
Spinach	do	6
Rhubarb	per lb	7
White potatoes	per lb	3
Cabbage	do	2½
Wax beans	per lb	10
Onions	per lb	4½
Tomatoes	per lb	11
Sweet potatoes	per lb	2½
Lettuce	do	15
Cucumbers	per lb	12
New potatoes	do	4½
Turnips, Rutabagas	per lb	4½
Yams	do	†3
Carrots	per lb	5
Strawberries	quart	25

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* *Indicates reductions from last list.*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from* [illegible]

NOTICE OF PRICE CHANGES.

		Old Price. cts.	New Price. cts.
Bread	loaf	4	5
Buttons, pearl, stock No 38,633	doz	7	10
Buttons, pearl, stock No. 38,632	do	6	8
Bath mits, stock No. 39,314	pair	29	35
Domes, for Berlin student lamp, stock No. 36,443	each	12	15
Beef, corned, 6s	tin	72	74
Garlic	lb	10	12
Rubifoam, stock No. 34,555	bot	20	25
Comfortables, stock No 38,382	ea	1.50	1.60
Drawers, Scrivens, stock No. 36,256	pair	66	70
Kettles, Berlin, No. 06, stock No. 38 341	each	35	30
Kettles, Berlin, No. 04, stock No. 38,339	do	30	25

Isthmian Baseball League.

Scores, May 30, 1908:

At Empire Park: Ancon, 5; Empire, 0

At Gorgona Park: M. P. & M., 3; Gorgona, 1; Marines, 3; Culebra, 1.

Scores May 31, 1908:

At Gorgona Park: Ancon, 9; Culebra, 0 (forfeited).

At Ancon Park: Empire, 15; Marines, 1.

At Empire Park: Kangaroos, 3; Gorgona, 2.

STANDING OF THE LEAGUE.

June 1, 1908:

	Played	*Won*	*Lost*	*Per cent*
Ancon	21	19	2	905
M. P. & M	21	16	5	762
Empire	21	15	6	714
Kangaroos	21	9	12	429
Culebra	21	8	13	381
Gorgona	22	5	17	227
Marines	21	2	19	095

To be played June 7, 1908:

At Ancon Park: Ancon vs. Kangaroos.

At Empire Park: Empire vs. Culebra.

At Gorgona Park: Gorgona vs. M. P. & M.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, May 29, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Albarracin, Ricardo
Barrows, Charles
Boi in, Emile
Boyd, Wm.
Chambliss, Oscar
Coleman, Robert
Condon, John
Conrad, Joseph
Creese, David
Cremer, Theodore
Crowley, Daniel
De Arment, R. S.
Douglas, W. L.
Dovel, Jacob
Edgerton, Glen E (2)
Faille, Kennett
Farber, Frank
Faucett, Katherine Connors
Fellinger, Philip
Finch, Emert
Fleming, Harry
Fyffo, Albert William
Greaves, H.
Greer, G. W.
Healy, Wm. C
Hicks, Dr. E. E.
Hillir, Clareburth
Jenkins, Henry N.
Kilmurray, W. J.
Kirkaldy, Louis Mortimer
Lindo, Albert
McCleland, John
McIntyre, Bernard
MacNeill, W. W.
Moore, W. H.
Morgan, George Willis
Mers, John B.
Myric, H. C.
Neer, O. L.
Oberle, J C.
Pinnock, E. Christopher
Power, J R.
Prescoe, Timothy
Robertson, R. R.
Spencer, William T.
Stanton, Fred C.
Stasen, Vincent Paul
Sullivan, Wm J.
Varankamp, Fred
Wahlund, Chas.
Walston, William H.
Whaler, John W.
White, H J
White, F A.
Wilson, James
Won Baumgarten, Carl

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON

Tagus	R.-M.	Saturday	May	30
Esperanza	P.R.R.	Saturday	May	30
Advance	P.R.R.	Wednesday	June	3
Prinz Joachim	H.-A.	Saturday	June	6
Panama	P.R.R.	Monday	June	8
Pr. Eitel Friedrich	H.-A.	Friday	June	12
Allianca	P.R.R.	Saturday	June	13
Magdalena	R.-M.	Saturday	June	13
Finance	P.R.R.	Thursday	June	18
Pr Aug. Wilhelm	H.-A.	Saturday	June	20
Esperanza	P R R.	Wednesday	June	24
Prinz Sigismund	H.-A.	Friday	June	26
Orinoco	R.-M.	Saturday	June	27
Advance	P.R.R	Monday	June	29
Colon	P.R R.	Friday	July	3
Prinz Joachim	H.-A.	Saturday	July	4
Allianca	P.R.R.	Wednesday	July	8
Pr Eitel Friedrich	H.-A.	Friday	July	10
Atrato	R.-M.	Saturday	July	11
Finance	P.R.R.	Monday	July	13
Esperanza	P.R.R	Saturday	July	18
Pr. Aug Wilhelm	H.-A.	Saturday	July	18
Advance	P.R.R	Thursday	July	23
Prinz Sigismund	H.-A.	Friday	July	24
Clyde	R.-M.	Saturday	July	25
Colon	P.R R.	Tuesday	July	28
Prinz Joachim	H.-A.	Saturday	Aug.	1
Allianca	P R.R.	Monday	Aug.	3
Finance	P.R.R	Friday	Aug.	7
Pr Eitel Friedrich	H.-A.	Friday	Aug.	7
Trent	R.-M.	Saturday	Aug.	8
Panama	P.R.R	Wednesday	Aug.	12
Pr. Aug. Wilhelm	H.-A.	Saturday	Aug	15

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon

FROM COLON TO NEW YORK

Finance	P.R.R.	Saturday	June	6
Pr. Aug. Wilhelm	H.-A.	Tuesday	June	9
Esperanza	P R.R	Thursday	June	11
Advance	P.R.R	Tuesday	June	16
Orinoco	R.-M.	Tuesday	June	16
Panama	P.R.R	Sunday	June	21
Prinz Joachim	H.-A.	Tuesday	June	23
Allianca	P.R.R	Friday	June	26
Atrato	R.-M.	Tuesday	June	30
Finance	P R.R.	Wednesday	July	1
Esperanza	P.R.R.	Monday	July	6
Pr. Aug. Wilhelm	H.-A.	Tuesday	July	7
Advance	P R R.	Saturday	July	11
Clyde	R.-M.	Tuesday	July	14
Colon	P R R	Thursday	July	16
Allianca	P R.R.	Tuesday	July	21
Prinz Joachim	H.-A.	Tuesday	July	21
Finance	P.R.R	Sunday	July	26
Trent	R.-M.	Tuesday	July	28
Esperanza	P.R.R	Friday	July	31
Pr. Aug Wilhelm	H.-A.	Tuesday	Aug.	4
Advance	P.R.R.	Wednesday	Aug.	5
Colon	P R R	Monday	Aug	10
Tagus	R.-M.	Tuesday	Aug.	11
Allianca	P.R R	Saturday	Aug.	15

FROM NEW ORLEANS TO COLON

Preston	U F.C.	Saturday	May	30
Harry T. Inge	U F.C.	Saturday	June	6
Ellis	U.F.C.	Saturday	June	13
Preston	U F.C.	Saturday	June	20
Harry T. Inge	U.F.C.	Saturday	June	27

FROM COLON TO NEW ORLEANS

Preston	U.F C.	Tuesday	June	9
Harry T. Inge	U.F.C.	Tuesday	June	16
Ellis	U.F.C.	Tuesday	June	23
Preston	U.F.C.	Tuesday	June	30

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Tagus	R.-M.	Tuesday	June	9
Magdalena	R.-M.	Tuesday	June	23

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston Jamaica, for New York

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's Line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company despatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Mercian*, about June 15, and *Barbadian*, about June 27.

CANAL RECORD

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The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

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Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Precise Levels Across the Isthmus.

A line of precise levels will shortly be carried across the Isthmus between the tide gauges at Cristobal and La Boca. The work is in charge of W. G. Comber, Division Engineer of the La Boca Dredging Division, and will be done by Messrs. E. J. Thomas and Geo. H. Wolbrecht, precise levelmen from the Mississippi River Commission, who arrived on the *Finance* June 2, and who have done a great deal of similar work for the Government. Work will be begun from each tide gauge at the same time, Mr. Wolbrecht starting from Cristobal and Mr. Thomas from La Boca.

Bench mark monuments are already established, in duplicate, all the way across the Isthmus. They are set at varying distances apart according as the condition of the ground permits. One of each set is placed with reference to present Canal work, and the other with regard to future contingencies, and care has been taken to have them above the level of the lakes to be formed when the Canal is finished.

The bench mark consists of a concrete slab, 18 inches square and 6 inches thick, buried about three feet in the ground. In the center is fastened a copper bolt, one inch in diameter, which is the point of precise elevation above sea level, established to the nearest one-thousandth of a foot. Directly over this bolt, and set in a groove in the concrete slab, is a 4-inch galvanized iron pipe with a flared bottom, and 4½ feet long, which extends about eighteen inches above the ground. This pipe has a brass screw cap with a slight projection on top, the elevation of which will also be determined, to be used on ordinary occasions. For extreme accuracy the cap will be removed and access had to the copper bolt through the hollow pipe. The concrete slab and brass cap are each marked with the letters "Isthmian Canal Commission, U. S. P. L. B. M., 1908." Each monument is enclosed by a fence 6 feet square, and everything above ground is painted white.

The object of this survey is to establish correct sea level elevations across the Isthmus and also to connect with existing French bench marks and the bench marks of the various construction divisions. It will show whether there is any discrepancy between the mean tide elevations of the Atlantic and Pacific oceans.

When the survey is completed a tabulated list of all the bench marks will be printed and distributed to the proper officials. It will give the correct elevation, latitude, longitude and azimuth of each separate bench mark, and the distance between each set of duplicate bench marks.

May Revenues.

The report of the Acting Chief of the Division of Posts, Customs and Revenues for the month of May shows that 13,425 money orders amounting to $403,108.14 were issued. This is a decrease of $42,873.12 from the amount reported for April, which was the largest on record. Of the $403,108.14 reported for May, $285,645.07 was in orders drawn on the United States and elsewhere, and $117,463 07 in orders payable in the Canal Zone.

The largest number of orders, 2,465, was issued at Cristobal and amounted to $73,433.01; Empire was second, with 1,652 orders, amounting to $49,392.58; Gorgona was third, with 1,390 orders, aggregating $45,238.10; Culebra fourth, with 1,370 orders, amounting to $38,336.12, and Ancon fifth, with 1,288 orders, aggregating $31,041.21.

Postage sales for the month of May amounted to $5,416.40, and other collections for the month were as follows: Land rents, $993.42; buildings, $225; distillery licenses, $306; district taxes and licenses, $5,411.51; district court fines and costs, $2,499.40 and miscellaneous bills, $1,425.89.

Manufacturing at the Shops.

Supplementing the article in THE CANAL RECORD of June 3, giving the cost of manufacturing during April in the shops on the Isthmus figures in greater detail are given below. In addition to the $39,409 33 credited to the Gorgona shop, $15,503.49 worth of castings was turned out by the foundry, bringing the total for that shop up to $54,902.82.

Gorgona—Number of orders, 247; cost of labor, $17,880.89; cost of material, $21,528.44; total for shop work, $39,409.33; average cost per order, $159.55. Gorgona foundry—Iron casting, 343,523 pounds; cost per pound, 32.1 cents; steel castings, 4,606 pounds; cost per pound, 8 cents; brass castings, 20.481 pounds; cost per pound, 20.14 cents; cost of labor, $8,436.15; cost of material, $6,667.34, Total cost for Gorgona shops and foundry—labor, $26.717.04; material, $28,195.78; total, $54,902.82.

Empire—Number of orders, 339; cost of labor, $14,307.89: cost of material, $21,391.40; total cost, $35,699.29; average cost per order, $105.31.

Paraiso—Number of orders, 168; cost of labor, $2,772.51; cost of material, $3,517.03; total, $6,289.29; average cost per order, $37.44.

Electrical sub-division—Number of orders, 11, cost of labor, $1,002.03: cost of material, $5,700.39; total, $6,702.42; average cost per order, $609.31.

Colon Dredging Work.

In May the Colon dredges took out 564,386 cubic yards of dirt, two old French ladder dredges and the *Ancon* doing the work. Of the total excavated the *Ancon* took out 300,601 cubic yards; dredge No. 1, 146,214, and dredge No. 6, 117,571 cubic yards.

At a point in Limon bay, seven miles north from the site of the Gatun locks the channel of the Canal begins. From this point three miles in toward the land the *Ancon* is doing the work of cutting a north and south channel, 40 feet deep and 500 feet wide, and is doing it at a cost of less than 4 cents a cubic yard. Sixty men working in three watches keep the dredge going night and day, and in May they put in 21 full days on actual dredging work. They mess, sleep, and work on the boat, and although there is no variety in the routine of sucking mud from the bottom and running out to dump it in deep water, except such as is afforded by the occasional fish drawn up by the big pumps and cast into the bin, the changes are few, and the men are interested in the work.

The old French ladder dredge No. 1, which was renovated and put in commission three years ago, is still doing good work. Its field of operation is from the point where the *Ancon* leaves off to a point one mile near the Gatun locks; n other words, it is working between "Mile 4" and "Mile 5," the zero for the scale being the beginning of the Canal out in deep water in Limon bay. A channel 250 feet wide is being deepened from 6 feet to 26 feet at a cost of about 14 cents a cubic yard. This dredge worked 24 full days in May. It and No 6 are run day and night in two shifts.

Two years ago, at the beginning of the rainy season, the old French dredge No. 6, was lying high and dry on the banks of the Chagres river at San Pablo. One morning it appeared at Gatun in apparently seaworthy condition, a flood of the night before having lifted it from the bank and carried it down the river. When the water rose again it was floated down the river past Fort San Lorenzo out to sea, and then towed to the Cristobal dry docks. It is a

NOTES OF PROGRESS.

(*Continued*)

least 20 years since this dredge was abandoned by the French, and yet it is doing good work to-day—the advance guard of the Colon dredges. It has its nose against the mud bank in the line of the Canal on the shores of the bay, and during May it ate away 117,571 cubic yards of that bank in 22 days. Its work is to cut a 300-foot channel through the land from 2 feet above low water to 26 feet below, between "Mile 4½" and "Mile 6."

To make a channel deep enough for the *Ancon* to turn in is the task of these two old French dredges. As the channel is made the *Ancon* will advance into it and deepen it to 40 feet. From where these dredges are now at work two steam shovels can be seen digging out the rock for the channel through the Mindi hills to Gatun. They are working from "Mile 5½" to "Mile 6." In May they took out 46,112 cubic yards of rock, and 8,221 cubic yards of dirt.

Money Orders to Trinidad and Tobago.

The Director of Posts has been advised by the Post-office Department at Washingington that a new Convention has been concluded for the exchange of money orders between the United States and the Islands of Trinidad and Tobago, to be in effect July 1, 1908, and that under the terms of this Convention, on and after that date money orders may be exchanged between the Canal Zone and the Islands of Trinidad and Tobago direct, the United States Administration to act as intermediary in the settlement of accounts.

This arrangement will greatly facilitate carrying on the money order business between the Canal Zone and the islands mentioned, as each Administration will then issue its orders direct on the other, and not by means of International orders through the Postmaster at New York, as is now the method of transacting money order business with Trinidad and Tobago.

The list of the money order offices in the two islands referred to is appended:

Arima, Arouca, Cedros, Chaguanas, Couva, Erin, Gran Couva, La Brea, Mayaro, Moruga, Port-of-Spain, Princestown, St. Joseph, San Fernando, Sangre Grande, Tobago (Roxborough), Tobago (Scarborough), Toco, Tunapuna, Williamsville.

Work at Cristobal Dry Dock.

Since it was enlarged in February the Cristobal Dry Dock has been kept busy on reconstruction and repair work. The old French dock was built partly of masonry and partly into the solid rock. It was 200 feet long, 35 feet wide, with an opening of 30 feet at the gates, and 14 feet deep at the sills. The enlarged dock is really new, as all the old masonry was torn away to make room for it. It is 300 feet long and 50 feet wide. The bottom and sides are of concrete, 16,200 cubic feet having been used. The gates were designed and made on the Isthmus, and from the beginning have worked well. The immediate reason for enlarging the dock was that the dredge *Ancon* might be examined. The dredge was found in good condition after nearly a year of service.

Clapet No. 3, one of the old French self-propelling barges reconstructed and commissioned three years ago, is now in the dock for repainting and minor repairs.

Clapet No. 2, another of the old French barges, is being rebuilt. It was raised in March from the scrap pile at Folks river from which several others have been taken. The frames were in good condition and there was only one streak to renew at the water-line. The stern plates are being renewed, new boiler saddles and engine foundations put in, and water-tight bulkheads between the mud bin and the hull are being constructed. A new boiler has been installed but the engine used by the French will be continued in service. Unlike the other clapets raised, which have two screws, this is a single propeller barge. The capacity is 275 cubic yards. It will be ready for service July 1, when it will be added to the barges that take the spoil from the old French dredges at work in Limon bay. The repairs will cost $15,000 and the new boiler and new machinery about $5,000.

In a few weeks another of these clapets, No. 1, left by the French in Folks river, will be raised and put in the dry dock for reconstruction. These clapets are built of iron and, although abandoned twenty years ago and lying in salt water ever since, they are in such condition that they well repay the cost of repairing them.

Construction of Buildings by Contract.

Sealed proposals will be received at the office of W. G. Tubby, Purchasing Agent on the Isthmus, up to 2.30 p. m., Monday, June 15, 1908, at which time they will be opened in public, for the construction by contract of two, type-14, four-family houses at Gatun, C. Z., the contractor to furnish all labor and the Commission to furnish all material on the ground. Plans and specifications can be obtained upon application to the office of the Chief Engineer, Culebra, C. Z. A deposit of $5, U. S. currency, must be made for the plans of any or both the buildings, guaranteeing their safe return. Bids will be considered on any one or both of the buildings. Certified check for $25, U. S. currency, should accompany bid for each house as evidence of good faith; this deposit will be returned after opening of bids, and successful bidder will be required to make deposit in the sum of $200 U. S. Currency, for each house, guaranteeing the faithful performance of contract. The right is reserved to reject any and all bids.

Steamer Chairs on Panama Steamships.

The officials of the Panama Railroad Steamship Company announce the following arrangements in regard to steamer chairs:

Commencing with the steamship *Finance*, sailing from Cristobal, June 6, 1908, it is the intention of the Panama Railroad Steamship Line to inaugurate a regular chair service on its steamers.

Steamer chair tickets can be obtained from the Purser on each steamship, from the Passenger Agent, at the Colon Ticket Office, or on dock No. 11 at Cristobal. They can also be obtained in New York City, either at the Company's office or at the dock. Tickets will cost the sum of one dollar ($1) gold for each chair for each single trip.

Chairs rented in this manner are to be the personal property of the passengers during the voyage, and will be cared for and placed on the deck at the passenger's convenience by a designated steward. Chairs taken aboard the steamships by passengers as personal property will be weighed with their baggage, and if left on board, will be stored at the owner's expense until they are redeemed or sold for accumulated charges.

This arrangement has been made in order to avoid complaint that has been made in the past by various parties as to the lack of and character of chairs that have been furnished.

Land Claims Commission.

The Commission appointed under Articles 6 and 15 of the Treaty between the United States and the Republic of Panama, to consider the claims against the United States for contemplated overflow of lands in the Chagres Valley through the creation of Gatun Lake, and for other lands to be taken up on account of the work of Canal construction, convened at the Administration Building, Ancon, on Monday, June 8. The American Commissioners were Messrs. Edwin Denby, Congressman from Michigan, and Edward C. Bumpus, a lawyer of Boston, who arrived on the Isthmus June 5. The Panama Commissioners were Gil Ponce and Julio Fabrega.

Several of the most important claims were adjusted prior to the convening of the Commission by Mr. Richard Reid Rogers, General Counsel of the Isthmian Canal Commission, upon the basis of an average valuation of between $4 and $5 gold per hectare, or about $2 gold per acre.

May Police Report.

The May report of the Chief of Police of the Canal Zone shows a decrease in the number of arrests for the month, 504 having been made in May as compared with 591 in April. Of the 504 persons arrested, 465 were men and 39 were women. There were 47 different offenses, and 40 different nationalities represented. They were divided among the different towns of the Zone as follows:

Ancon	25	Las Cascadas	25
Las Sabanas	2	Bas Obispo	35
La Boca	24	Gorgona	94
Corozal	3	San Pablo	4
Pedro Miguel	6	Tabernilla	15
Miraflores	6	Bohio	12
Paraiso	15	Gatun	56
Culebra	48	Cristobal	76
Empire	58		
Total			504

There were 144 prisoners in the district jails on May 31, a decrease of two for the month. The coroner held inquests on 10 cases of accidental deaths, 3 deaths being caused by dynamite explosions and 3 by railroad accidents.

The number of convicts at the Zone Penitentiary on May 31 was 99, an increase of 4 for the month. The value of work performed by the convicts on roads, etc., was $1,348.20. The total effective police force on May 31 was 145, and the pay roll for May amounted to $16,664.27.

The Division of Building Construction during the month of May, 1908, finished the construction of 29 buildings, made repairs to 138, alterations on 14, and demolished 9 old buildings. The average number of employes at work was 1612, of which number 386 were "gold" and 1226 "silver" employes.

DRYING HOUSES AT LABOR CAMPS.

Rainy Season Brings Them into Use Again.

In the first month of the present rainy season the experience with the drying houses for European and West Indian laborers has been that about 50 per cent. of the men entitled to use them take advantage of the opportunity, but that they are used almost exclusively for laundry purposes. It is rarely that a man brings clothing, wet from the rain or perspiration of the day, to the drying house at night.

A drying house for every labor camp was part of a plan for the sanitation of the camps recommended by the Sanitary Department and approved by the Chief Engineer, September 5, 1906. As an experiment, house 130, at Rio Grande was fitted up with a stove and clothes racks and was used from November 1, 1906, to February 26, 1907. The experiment was successful enough to cause the committee in charge of the investigation of the causes of pneumonia to recommend that a drying house be established at each of the 18 camps for European laborers and the 20 for negroes. This recommendation was part of a report in which the chief cause of pneumonia was traced to a "catarrh which predisposes to pneumonia," and the drying houses were deemed important in preventing catarrh. Accordingly, on July 18, 1907, two more were authorized, one at Gatun for European laborers, and one at Camp Bierd, Cristobal, for negro laborers. Each of these houses is 30 feet long by 20 feet wide, and is composed of two sections, one consisting of two drying rooms, each 10 by 12 feet, in which a steam coil under a false floor supplies heat and in which are lines and poles for clothing, and the other a concrete platform on which eight sinks are mounted for use in washing clothing. The drying house at Rio Grande is heated by stove; those at Gatun and Camp Bierd by steam supplied from a boiler installed just outside of the building. These are the only houses of this character so far established. To increase their use and effectiveness, eight additional tubs are to be installed at each camp, a system of checking the clothing has been put in operation, and notices have been posted throughout the camps of which the following is a sample:

WASH HOUSE AND DRYING ROOM IN OPERATION.

DO NOT SLEEP IN WET CLOTHING.

The Drying Room operated in this camp will dry clothes for laborers without charge.

In carrying out the general policy of the Canal Commission, to do everything possible to insure the continued good health of its employes, wash houses and drying rooms have been authorized and built at the different camps along the line of the Canal. Now that the rainy season is on the Cristobal plant has been started up and has been in operation for some time past, but as yet has not been very generally made use of by the occupants of the Commission quarters in Camp Bierd.

EMPLOYES WILL TAKE NOTICE THAT THEY ARE AT LIBERTY TO USE THE DRYING ROOM WHENEVER THEY CARE TO DO SO. IT IS MAINTAINED FOR THEIR BENEFIT, AND WE URGE THAT EVERY MAN MAKE USE OF IT.

Important to Health—The Health Department has, from time to time, sent out circulars warning the laborers of the danger of contracting catarrh and pneumonia on account of sleeping in the soiled and damp clothes which they have worn while at work during the day. The wash house and drying rooms which are now open in the camp afford the men ample opportunity to keep themselves supplied with clean and dry clothes every day, if they will only avail themselves of the service, and, by so doing, reduce the risk of catching any of the infectious or dangerous diseases prevalent in this climate.

No Clothes will be Lost—A checking system will be operated in connection with this drying plant, and every person depositing his clothes in the rooms will be given a duplicate check, and no one will be permitted to remove any clothing from the plant without presenting to the checker his duplicate check therefor. By this system it is hoped to avoid any confusion or loss of clothing.

Open Day and Night—The plant is in charge of and being operated and maintained by the Labor and Quarters department, and it is to be kept running day and night, in order that every man may have the opportunity to get the full benefit of the accommodation; and it is requested that any complaints with respect to the service will be promptly reported to the foreman of the camp.

In the report on the use of the drying house at Camp Bierd in May, it is stated that wet clothing can be dried thoroughly in three hours with from 30 to 40 pounds of steam, and that of the 1,415 negroes in the camp only about fifty used the house for drying purposes a certain night, while thirty used the tubs for washing their clothing. At Gatun there are only 182 laborers, all Europeans, by whom the house may be used. Of these about one hundred use it in rainy weather. The report says that such houses will always be used more by Europeans than by negroes, as the former have more clothing and take better care of it.

The hours at the Rio Grande dry house are: 4 a. m. to 7 a. m., 11 a. m. to 1 p. m., 4 p. m. to 8 p. m. The report on this house says that it is used more as a laundry than for the drying of clothing; that about 50 per cent. of the men use it, that the operation is a success, but that the house is not used to its capacity. In fact, so little use is made of it, says the report, that it is doubted if it would be wise to establish others.

Fourth of July Celebration.

A meeting of the Executive Committee to arrange for the celebration of the Fourth of July at Ancon was held in the office of Commissioner Blackburn on Friday, June 5, at 8.30 a. m. It was reported that subscriptions aggregating $1,441.50 had been received, making the total amount available (including the balance from last year) $1,764.07. Several lists are still outstanding, and efforts are being made to increase the amount of subscriptions.

The report of the Committee on Amusements was read, submitting a program for athletic and similar events, and was approved, except as to three items, respecting which further consideration by the Committee was requested. The Committee was authorized to select a design and order the necessary medals.

Members of the Amusement Committee, to have charge of athletic events, were announced as follows: George R. Shanton, (Chairman), C. C McCulloch, E. J. Jadwin, H. W. Stickle, George R. Goethals, Glenn E. Edgerton, A. B. Herrick, M. B. DePutron, R. E. Noble, George H. Bartholomew, F. W. Doty, D. E. McDonald, Wm. Wood, H. C. Bovay, F. L. LaRose, R. C. Shady, F. O. Thompson, W. W. Wright, D. E. Hayes, A. M. Barrett, A. Borg, W. Cate, A. R. Sweet, H. R. Hudson, C. Fortney, C. N. Gifford, C. Harrington, A. J. Pompegi, A. R. Richards, R. G. Goodman, W. G. Manley, A. F. Rosenbaum, L. R. Drake, E. A. Kibbey, J. G. Whitley, J. C. Worrell, W. H. Frazee and R. Roberts.

Applications for entry in the athletic events should be addressed to the Chairman of the Committee on Amusements, office of the Chief of Police, Ancon, Canal Zone. It is request that those wishing to participate will make their entries as soon as possible. Entry sheets will be closed on June 27, 1908.

Events will be opened to amateurs only, but individuals who have competed in former contests for money will not be regarded as professionals. Medals—first prize, gold; second, silver; third, bronze, will be offered for the field events, and cash prizes for free-for-all events. The following events are scheduled:

FIELD EVENTS.

	a. m.
100-yard dash	9 00
880-yard run	9 45
Running broad jump	9 45
220-yard dash	10.00
Running high jump	10 15
Pole vault	10.30
Race, one mile	10 45
440-yard run	11.00
Hurdle race, 120-yard, 10 hurdles, 3½ feet high	11.15
Relay race, 1 mile, four men, ¼ mile each team, only organized clubs to compete,	11.30

FREE-FOR-ALL EVENTS.

Fat man's race (200 pounds or over)—100-yard dash, 2 p.m. First, $10; second, $5.

Three legged race (100 yards)—2.15 p.m. First, $20. second, $10; third, $5.

Boy' srace (14 years or under, 50 yards)—2 30 p.m. First, $5; second $2.50 (in merchandise).

Ladies' race (50 yards)—2.45 p.m. First, $10; second, $5.

Sack race (50 yards)—3 p.m. First, $10; second, $5.

Wall Scaling Contest (between sailers and marines)—3.10 p.m. First, $25; second, $10.

Pony race (¼-mile)—Native ponies only. Entry fee, $2. 3.30 p.m. First, $20; second, $10.

Pony race (½-mile)—Native ponies only. Entry fee, $2. 3.45 p.m. First, $20; second, $10.

High jump for horses (over brush hurdles, native horses)—4 p.m. First, $10; second, $5.

Mule race (¼-mile)—4.15 p.m., $5.

Bucking horses (horses furnished contestants) —4.30 p.m. First prize, $25 and championship of Isthmus; second prize, $15.

Race for retiring sharp shooters—4.45 p.m. First, $10; second, $5.

Test run of Ancon Fire Department (in front of Hotel Tivoli)—1 p.m, $10.

Money for pony races should accompany application for entry.

Any further information regarding athletic contest can be obtained from Mr. F. L. LaRose, Y. M. C. A., Gorgona.

The next meeting of the Executive Committee will be held in the office of Commissioner Blackburn on Friday, June 26, at 2 o'clock.

Isthmian Baseball League.

Scores, June 7, 1908:

At Ancon Park—First game: Ancon, 11; Kangaroos, 0 (seven innings). Second game: Ancon, 12; Kangaroos, 2 (five innings).

At Empire Park—First game: Empire, 8; Culebra, 0. Second game: Empire, 4; M. P. & M., 0.

At Gorgona Park—M. P. & M., 6; Gorgona, 2.

STANDING OF THE LEAGUE.

June 8, 1908:

	Played	*Won*	*Lost*	*Per cent*
Ancon	23	21	2	913
Empire	23	17	6	739
M. P. & M	23	17	6	739
Kangaroos	23	9	14	391
Culebra	22	8	14	364
Gorgona	23	5	18	217
Marines	21	2	19	095

To be played June 14, 1908:

At Ancon Park: Ancon vs. M. P. & M.

At Empire Park: Empire vs. Kangaroos.

At Gorgona Park: Marines vs. Culebra.

SOCIAL LIFE OF THE ZONE.

Reorganization of the Ancon Woman's Club.

Owing to the changes in its officers and other circumstances that have arisen since its organization, the members of the Ancon Woman's Club feel that it will be necessary practically to reorganize the club and start afresh on a new basis. At the business meeting, June 3, the second vice-president, Mrs. Charles Boxer, was called, by unanimous vote, to the chair, and, further, elected to continue as presiding officer until the regular election of officers which, according to the present by-laws, will take place in October.

A committee has been appointed to examine thoroughly the constitution and by-laws under which the club is working, and all necessary amendments and changes will be made in both. The committee has been instructed to present the results of its work at the business meeting in August.

At the close of the meeting on Wednesday, the members were invited to remain and meet Mrs. Emma L. Robertson, secretary of the Florence Crittenden Mission, with headquarters in Washington. Mrs. Robertson gave an informal talk on the work of the Mission which was founded in 1883 by Mr. C. M. Crittenden in memory of his daughter, Florence. The mission has its special work among women and girls and has grown from one small home in the slums of New York to seventy-four homes in various parts of the United States, and in China, Japan, France and Mexico. Training schools, hospitals and nurseries are important features of the work. Mrs. Robertson's talk was followed by a discussion, during which the necessity for philanthropic work of the same nature was brought up, and, in the name of her mission, Mrs. Robertson offered the co-operation of the organization in any efforts that might be undertaken.

A statement was made by one of the club members to the effect that the officials of the Panamanian Government had unofficially expressed their willingness to co-operate with the work for the prevention of cruelty to children and animals, and assurance has been given that offenders in either case will be punished.

The Gorgona Club met in special session on May 28, when committees were appointed for the purpose of drafting amendments to the by-laws of the club. These will be placed before the club at a called meeting on June 11, for which notices have been posted. Mrs. J. S. McConnaughy was appointed chairman of the educational department, and Mrs. L F. LaRose was elected member of the Advisory and Reciprocity Committee of the Zone Federation.

The second sale inaugurated by the members of the St. Mary's Guild, Empire, took place at the Commission club house on the afternoon of June 4. The articles sold were laundry bags, aprons, and home-made cakes. Twenty four dollars were added to the church fund as a result of the sale. The guild will probably take a short recess during the next few months, as so many of its members will be away. The work of caring for the hall in preparation for services is in charge of one of the members.

Owing to the change in the schedule of Sunday trains on the Panama Railroad, the hour of morning service at the Roman Catholic chapel in the Ancon hospital grounds has been changed from 9 to 9.30 a. m.

Bishop Knight's Impressions.

During the recent visit of the Bishop of Cuba, who has been placed in charge of the Panama Mission, eight confirmations were held, the number confirmed being ninety, among whom were five Americans. The bishop had ample opportunity in his travels along the line, to form definite ideas concerning the people in the Zone and their life in its various aspects, domestic, moral, and religious.

He found that the condition of general religious work far exceeded his expectations and observed with pleasure that the authorities are co-operating with the work of the churches. He was impressed with the character of the men engaged in Canal work, and said that they seemed to be picked men of unusual physical strength and development. "It is generally found," he said "that in a rush of people to a new territory the predominating element is the rough one, and the fact that the better class of Americans is attracted to the Isthmus gives assurance that the work the Government has undertaken will be carried on to a successful issue."

Bishop Knight will make his official visits to the Isthmus twice during the year, in May and November, approximately. He gives assurance that he intends to devote to the work of building up the Episcopal church here the same careful and personal attention that he has in Cuba, which has been his only field heretofore, and desires to co-operate with the people in every possible way.

CLUB NOTICES.

Sojourners Lodge No. 874, A. F. and A. M. will meet at its hall in Colon, Saturday evening, June 13, at 7.30 p. m. in ordinary communication. Masons in good standing are fraternally invited to be present.

The officers of the Department of Canal Zone, Army and Navy Union of the United States of America, will be pleased to meet all ex-soldiers, sailors and marines, regulars and volunteers, living in and near Cristobal on Sunday, June 14, at 3 p. m. in the Commission Club house. It is desired to complete arrangements for an application for a charter for a garrison in Cristobal.

The celebration of St. John's Day will take place on Sunday, June 21, at Taboga Island. A special train will leave Colon at 6 a. m. All Masons wearing the badge for the occasion, accompanied by their families, will be admitted aboard the special at all principal stops en route to La Boca, and it is intended, for the purpose of securing a complete record, to take the name and number of the lodge of each Mason on the excursion.

Badges can be procured from Brothers J. B. Fields, Las Cascadas; J. T. Woods, Culebra, J. R. Strock, Gorgona; J. W. Johnson, Paraiso; L. S. Garske, Gatun; H. A, Haywood, Empire, and Mr. Styles, Ancon.

All Masons with their families are cordially invited to take part in the celebration. Ladies will prepare and carry only a light basket lunch, as the heavier lunch will be provided by the committee.

PERSONAL.

Secretary Joseph Bucklin Bishop, accompanied by his wife and daughter, will sail for the States on the *Esperanza*, June 11, on a two months' leave of absence, returning to the Isthmus early in August.

Hon. Herbert G. Squiers, American Minister to Panama, accompanied by his daughter, Miss Helen Squiers, sailed for New York on the *Allianca*, June 1, for a brief visit to Washington.

Messrs. James Bronson Reynolds, Samuel B. Donnelly and Henry Beach Needham, the Special Commissioners appointed by the President, who came to the Isthmus on May 10 to investigate the labor conditions in the Canal service, returned to the States on the *Allianca*, June 1.

Mr. W. W. Warwick, who has recently been appointed Examiner of Accounts for the Isthmian Canal Commission, arrived on the Isthmus on the *Esperanza*, June 5, accompanied by his family. In 1904, Mr. Warwick was Assistant Auditor of the Canal Commission, and since 1905, he has been Chief Law Clerk in the office of the Comptroller of the Treasury, where he has had much to do with the accounts of the Commission.

First Lieutenant John B. Barnes, 5th Infantry, U. S. A., who has recently been stationed with his regiment at Sagua la Grande, Cuba, arrived on the Isthmus on the *Esperanza*, June 5. Lieutenant Barnes has been assigned to duty as first lieutenant in the Canal Zone police force, and will immediately enter upon his duties.

Among the passengers on the *Allianca* which sailed from Cristobal on June 1, were: J. A. Smith and family and W. J. Rodman of Colon; Mrs. Geo. R. Shanton and daughter of Ancon; E. J. Banta and wife of Culebra; Mrs. E. C. Cummings and child of Gorgona, and W. O. Johnson and wife of Empire.

Information is wanted in regard to William Robinson Tate, of Lodge Pole, Nebraska. He left Oklahoma last November and was last heard of in New Orleans, and it is believed he is in the Canal Zone. Any information in regard to him sent to THE CANAL RECORD will be forwarded to his parents who are anxious to hear from him.

If John Cheffer, American, who left Tampico about four years ago to work on the the Panama Canal will communicate with Guillermo R. King, Lista, Tampico, State of Tamaulipas, Mexico, he will learn something to his advantage.

Obituary.

Dennis O'Shea died at Colon Hospital June 4, 1908, from a fracture of the skull sustained three days before on the Panama Railroad. He was 48 years of age. His home on the Isthmus was at San Pablo. A sister living in Lynn, Mass., survives him.

To lessen the opportunities for mosquito breeding, 24 acres of land near the Gatun hospital have been cleared of all vegetation at a cost of $48 an acre, the contract having been let on competitive bids. Saplings and stalks less than three inches in diameter were burned, while stuff three inches or more has been piled up for use as fuel. The vegetation was cut so close to the ground that it will now be possible to keep the area cleared with a scythe.

FRUITS OF THE ISTHMUS.

Kinds that can be Successfully Grown.

Mr. Henry F. Schultz, horticulturist of the Commission, delivered an address on "The fruits of the Isthmus," before the Culebra Woman's Club, on May 21, of which the following is an abstract:

The most important tropical fruit is the banana (*Musa Paradisiaca*), and indications are that it will keep the first place for many years to come. Its origin is supposed to be the East Indies, whence it has spread to all tropical and subtropical countries. As only a few of its varieties produce seed it is generally considered, like the yam, casava, tanya and sweet potato, which never produce seed, one of the oldest cultivated plants. Like the plantain it belongs to the family Musacaae, all members of which are fibre plants. To the natives it is invaluable, not only for its abundance of nutritive food, but also for thatching huts, and the manufacture of rope.

Most of the edible bananas have lost the power of reproduction through seed, and are propagated only by off-shoots or suckers which under proper conditions produce fruit from 12 to 18 months after planting. The fibre producing varieties, like the manila hemp, are mostly propagated through the cheaper method of sowing the seed. In the West Indies and several continental American countries the unexpectedly large number of over fifty varieties of the banana has been registered. As a rule not more than five or six of these are found in the markets, the commonest being the "Martinique," the large banana of commerce, the fig banana, a comparatively small but well flavored fruit with firm flesh, the apple banana and the red banana. The red banana was a favorite some years ago, but as it does not stand transportation well, it is seldom planted now except for local use.

One of the choicest tropical fruits is the aguacate, avocado, or alligator pear. The latter name should be discarded for it is misleading. Its botanical name is *persea gratissima* and it belongs to the order *Lauraceae*, or laurel family. The avocado is a native of the West Indies and of the continent from Mexico down to Peru and Brazil. It also occurs in Java and the Philippine Islands. Avocados vary in shape, form, color and taste, and not only according to the location where the tree has grown, but the fruit of seedlings from the same mother tree also shows ameliorating or deteriorating characteristics as the case may be. It is an established fact that the tree does not bear fruit true to seed, and the man who starts an avocado orchard from seedling trees takes a more than ordinary risk, as the larger percentage of his trees will probably fail to produce a remunerative crop. It is therefore necessary to bud the trees with wood of a superior variety. This will produce uniform fruit and give quicker returns. A budded tree will bear a crop a year or more in advance of seedling trees.

The avocados on the Isthmus are mostly in a semi-cultivated state, and, although trees with very good fruit are sometimes found, the fruit as a rule is inferior to that brought from Peru and Ecuador. Most varieties of the fruit on the Isthmus are of obvate form, like a pear. As a rule these varieties carry a larger proportion of meat than the round kind, but frequently the round fruit, which is usually purple skinned, is found with small seed and seed cavities, which is a point in its favor. The fruit is considered very nutritious and contains a large percentage of essential oil. In the West Indies the oil is extracted from the pulp of the fruit and used for illuminating purposes or for soap making. The seeds yield a deep black indelible stain and are used for marking linen.

When ready for the table the meat should cut smoothly with a tea spoon and be of about the consistency of cool butter. It should be seasoned sparingly with salt, pepper and vinegar.

The best and most delicious fruit, and one which is among the cheapest to grow in this country, is the fig. I have planted cuttings from a plant which made out a meagre existence just outside of Ancon hospital and have gathered and eaten ripe fruit from them ten months afterwards. The same small plants are coming into bearing again, and will mature fruit in less than two months from now. Many people have never tasted figs except in the dried state, and have no idea of the exquisite flavor of the fruit fresh from the tree, or served with cream. No other tropical fruit can compare with it, and even our Northern peaches and strawberries do not excel in point of flavor and other desirable qualities, a fully ripe fig.

The mango (*mangipi indica*) is frequently called the king of fruits. With its unique form, rich coloring, and luscious taste it certainly deserves a high rank. Its true merit is known to but few, however, as the better varieties are rare in this country. But people who have eaten it in the Philippines, continental East India, or in Florida are enthusiastic about the qualities of the mango. The native home of the mango is thought to be the region at the base of the Himalayas whence it has spread to almost all parts of the tropical world. In the middle of the 18th century it was introduced into the West Indian islands and Mexico. Like the avocado the mango does not come true to seed, though it is not quite so unreliable as the former. Here on the Isthmus the most common of the seedling varieties grow almost wild, and produce an abundance of very indifferent fruit with sometimes a disagreeable flavor and texture, which have given rise to the damaging epithets that are frequently applied to the mango. It would be as fair to judge the apple by half wild seedlings, as to form an estimate of mangoes by the sorts that abound in fibre and turpentine flavor.

I have tried to gather from the natives the names of the different varieties of mango, but have failed utterly. Even the local names cannot be accepted as bona fide, and a collection of them would only tend to aggravate the existing confusion. The right way to eat a mango is to cut two parallel lines around the skin, near the opposite ends of the fruit, then separate the skin within these lines from the meat, which you take out with a teaspoon or, if it is too fibrous, with a knife. The fruit should be placed on ice before serving.

One of the greatest favorites among tropical fruits is the luscious and juicy pineapple (*Ananassa sativa.*) It can exist for months without a drop of water, although it is strictly a terrestrial plant. The island of Taboga, receiving only a fraction of the rainfall of the Isthmus proper, produces the finest pineapples for that reason. In places where you would think no plant could possibly exist the pineapple flourishes and produces fruit. The nearly perfect blend of sweetness and acidity in the "pine" makes it an almost faultless fruit. The fact that many varieties seldom produce seed has probably stood in the way of would be breeders of new varieties. The best variety on the Isthmus is the "Guayaquil" pine, similar to the "Smooth Cayenne," a smooth leaved sort with fair-sized fruit and good flavor, juicy enough for the most exacting taste when the fruit is allowed to mature on the stalk. The "Sugar Loaf" is a small fruit of very good quality and yellowish meat. The "Red Spanish" pineapple is the great stand-by in most countries, embodying the qualities of prolificness, good flavor, size and vigorous growth.

All cultivated varieties of oranges have been disseminated from the Malay Archipelago, and wherever soil and climate are suitable they are grown in ever increasing numbers. Like nearly all fruits on the Isthmus they grow from seed only. Though in general well-flavored and of good size the Panama orange cannot quite stand comparison with the Florida or California fruit. One of the reasons for inferiority is the large amount of so called "rag," the tough, indigestible inside fibre. Navel oranges have been planted sparingly in late years, but it remains to be seen whether the seedless varieties will prove a success here. I would favor the importation of good Florida varieties, as Panama has more points in common with Florida than with California.

The fruits just mentioned are the more important ones, but there is a greater number of others which furnish good eating. The star apple, (*Chrysophyllum cainite*) so called from the star-shaped formation of its inner segments, has a sweet pulp, either brown or purple, and contains a milky juice by no means disagreeable. Of the same family (*Sapotaceae*) is the nispere or sapodilla, a tree borne berry three inches in diameter, russet brown in color, and with a sweet grainy pulp which contains no acid principle whatever. From the bark of this tree exudes chicle, the main ingredients of chewing gum. Like the sapodilla in appearance and last of the valuable fruits of the *sapotaceae* family is the mamei colorado, also a tree berry with a very rich, sweet taste. The yellow mamei belongs to the family *guttiferae*, is a fruit of firm body, from three to six inches in diameter, and is flavored somewhat like the apricot, from which fact it is often called the "San Domingo apricot." Soursop (*Anona muriata*), locally known as guanavena, often weighs as much as ten pounds, is borne close to the trunk of the tree or even on the trunk itself, has a soft, whitish pulp with a pleasantly sub-acid taste and is suitable as a flavor or for making a cooling drink. Of great economic importance is the breadfruit, two crops of which are produced a year. The fruit is white within, all solid, and when baked or roasted resembles bread in taste. It is very nutritious. The papaya is a large obovoid fruit which looks and tastes not unlike muskmelon. It is said to have excellent digestive properties. Other commonly known tropical fruits found on the Isthmus are the cocoanut, grape fruit, lime, guava, tamarind and pomegranate.

LETTERS FROM THE LINE.

(Communications to this column must be signed in each instance with the name and address of the writer.)

Fireworks for Palo Seco.

THE CANAL RECORD:

While all are looking forward to the celebration of the Fourth of July, it may not be amiss to direct attention to the isolated family at Palo Seco Leper Asylum.

For three years the Fourth has, in a small way, been celebrated by the lepers, and this year, well settled in their new home, their hopes run high for a specially noisy time. With this end in view, contributions of fireworks of any kind, from a handful to a carload, will be gratefully and joyously received. Bunting and flags will also be acceptable.

Friends, or anyone desiring to align themselves as friends, of lepers for the occasion, step forward—direct your packages to "Superintendent, Palo Seco Leper Asylum, Palo S co, care of Director of Hospitals, Ancon, Canal Zone."

HENRY V. GARLAND,
Superintendent.

Palo Seco, June 1.

Resolution of Sympathy.

THE CANAL RECORD:

We have the honor to enclose herewith a resolution of sympathy, concerning the late Joseph P. Roche, who was killed by a premature explosion of dynamite at Caimito Mulato, on May 22.

The remains of Brother Roche were taken from Ancon to Cristobal on a special train, May 31, by Culebra Lodge No. 3, Knights of Pythias. Brothers from all the Zone lodges participated in the funeral procession and services at Pier No. 11.

M. C. NOLAN,
Chancellor Commander.
N. J. ADAMS,
Keeper of Records and Seals.

Culebra, June 3.

WHEREAS, The Lord in His all-wise Prov. idence, has called from among us our brother, Joseph P. Roche, and

WHEREAS, We had learned to love and esteem him most sincerely as a Brother Knight and officer of this lodge, and do mourn his loss; be it,

Resolved, That we, the Knights of Pythias, Culebra, Lodge No. 3, extend to his relatives, of whom he often spoke most reverently, our sincere sympathy in their bereavement, and, further, That a copy of this resolution be sent to his relatives, THE CANAL RECORD and to the press for publication.

GEO. A. JONES,
C. R. HARRINGTON,
H. E. EARLE,
Committee on Resolutions.

Gorgona Christian League.

THE CANAL RECORD:

The regular election of officers of the Gorgona Christian League was held on Thursday evening, June 4. The following officers were elected for the next six months: Harry W. Otis, president; J. H. McConnaughy, first vice-president; Ralph R. Wolf, second vice-president; Arthur J. Sweet, recording secretary; C. R. Packard, financial secretary, and D. M. Woodsom, treasurer. This organization is created for the furtherance of Sunday preaching services, Sunday school work, and young people's Christian work in Gorgona.

RALPH R. WOLF.

Gorgona, June 5.

Convention of Sunday Schools.

THE CANAL RECORD:

The Isthmian Sunday School Association committee has called a convention of Sunday school workers at Culebra church for June 14, 1908, at 2.30 p. m.

All Sunday schools on the Isthmus are entitled to five delegates, and it is earnestly desired that there will be a full attendance. Also that the public will turn out en masse, especially all Sunday school sympathizers, as there will be several topics of peculiar interest freely discussed. Good music is promised.

J. C. FORMAN,
Chairman of Program Committee.

Empire, June 5.

A Correction.

THE CANAL RECORD:

I beg to call your attention to a slight error in your issue of June 3, which I trust it will be possible to correct in an early issue.

Under the heading of "Commission Club Houses" in reporting the Athletic Meet at Gorgona, you show the pole vault as being won at 9 feet. The height was actually 10 feet, as the records of the judges will show.

I should not trouble you with this correction were it not for the official nature of your publication, which will cause it to be used as reference should any dispute arise later on in the matter of records.

GUSTAV C. HERTZ.

Culebra, June 5.

[The figure published was furnished by the official scorer.]

Paraiso Lodge No. 6, K. of P.

THE CANAL RECORD:

Paradise Lodge No. 6, K. of P., was instituted on the night of June 6, 1908, in the Castle Hall of Culebra Lodge No. 3. The following officers were installed: Past Chancellors, B. H. Moak, D. J. McCauley, F. L. Huff, E. E. Clark; Chancellor Com., W. B. Jordan; Vice-Chancellor Com., C. F. Brennan; Prelate, J. J. Maher; Master at Arms, W. H. Frazee; Master of Work, J. C. Worrall; Keeper of Records and Seal and Master of Finance, E. E. Clark; Master of Exchequer, Marquis White; Inner Guard, G. M. Armistead; Outer Guard, H. E. Webber; Trustees, six months, H. E. Webber; one year, W. C. Blakeman. 18 months, K. G. Jones.

The Lodge will meet on Monday night in each week in the lodge rooms at Paraiso.

E. E. CLARK,
K. of R. and S.

Paraiso, C. Z., June 8.

Four Lidgerwood Unloaders working on the Tabernilla Dump in April unloaded an average of 12 trains each, a day. Two of the "New McCann" spreaders did the spreading.

One hundred and eighty marines left New York on the *Panama* June 8, and are due here June 14. They will be quartered at Camp Elliott.

HEALTH REPORT FOR MAY.

Good Condition Shown.

*To the Chairman, Isthmian Canal Commission,
Culebra, C. Z.*

Sir: I, herewith, forward report of the Department of Sanitation for the month of May, 1908.

I think that a comparison of its general statistics with those of the same month last year, will be of interest, as well as the best method of estimating general progress.

In May, 1907, the annual death rate per thousand for white employes, was 18.34; in May, 1908, the corresponding rate is 14.59. The rate for black employes in May, 1907, was 34.48 per thousand; in May, 1908, it is 8.72 per thousand. The rate for all employes, black and white combined, in May, 1907, was 30.15; in May, for the same employes, the annual death rate per thousand, is 10.44. These rates, it will be noted, all show a mark reduction, particularly those relating to the black employes.

In the City of Panama, for May, 1907, the rate per thousand, was 26.79; in May, 1908, the annual death rate per thousand is 30.10—a slight increase. This is more than offset, however, by the improvement in the annual death rate for the city of Colon, which was 34.21 per thousand last year, as compared with 29.79 per thousand for this May.

Taking the total population of Panama, Colon and the Canal Zone, we find an annual death rate, per thousand, in May, 1907, of 31.57; in May, 1908, of 20.87 per thousand. This, it seems to me, is an extremely good showing for the results of sanitation during the year just passed.

There were 39 deaths this May among employes, against 98 deaths for May, 1907. There were four deaths from malaria among the employes this May, against six deaths from the same disease last May. Nine of the 39 deaths among employes, accounted for in this report, were from external violence, and eight of these nine deaths were among the white employes.

The reduction, as compared with last year's rate among employes is principally due to a decrease in the number of deaths from typhoid fever—two for this year, as compared with 13 for last year, and from pneumonia, which gave eight deaths this year, as against 33 deaths for last year. All deaths from these two diseases, this May, were among the black employes.

No yellow fever, plague or smallpox occurred during the month.

On the whole, sanitary progress has been very satisfactory.

Very respectfully,
(Sgd.) C. C. MCCULLOCH, JR.
Acting Chief Sanitary Officer.

NOTICE TO TAXPAYERS.

All taxpayers in the Canal Zone are hereby notified that the annual tax due on houses and other real estate for the year ending June 30, 1908, is payable during the month of June to the various district tax collectors, located at La Boca, Empire, Gorgona and Cristobal, and payment should be made to the district tax collector of the district within which the property is located. This tax is delinquent after June 30, 1908, and if not paid on or before that date, an additional amount of 10 per cent. of the original tax will be collected as penalty for nonpayment within the prescribed period.

HERMAN A. GUDGER,
Acting Collector of Revenues.

Ancon, C. Z., June 3, 1908.

AMOUNT OF EXPLOSIVES REQUIRED ON CANAL WORK FOR THE FISCAL YEAR 1909

Over five thousand six hundred tons of dynamite will be required for the Canal work in the fiscal year 1909, according to estimates made by the division engineers and approved by the Chairman and Chief Engineer. In these estimates are also included an order for over 2,534 miles of electric fuzes, 292 miles of triple tape fuse, over 100 miles of connecting wire, and more than six hundred thousand blasting caps. Nearly 64 per cent. of all the dynamite required will be for the use of the Culebra division, the amount being 3,600 tons. Only one division, the Chagres, will use 30 per cent. dynamite, which is a sufficidnt percentage of strength for medium rock. In the Gatun Dam division dynamite will not be required after October. The explosive required by the Panama railroad will be used in the construction of its relocated line.

The order will be placed on competitive bids and on the condition that delivery of a certain amount, approximately one-twelfth, will be made each month. This arrangement will give the contractor time to make the explosive from month to month, and will make it feasible to keep only a three months' supply on the Isthmus, thus lessening the danger and loss in case of an explosion. The estimate for all kinds of explosives is summarized in the following tables:

Blasting caps	*No.*	*Triple tape fuse*	*feet*
Gatun locks.....	52,000	Gatun locks..	300,000
Chagres Div....	24,000	Chagres Div.	18,000
Culebra Div.....	300.000	Culebra Div.	720,000
Pacific Lock and Dam.....	21,600	Pacific locks and dams..	64,800
La Boca Dredging......	190,000	La Boca Dredging...	260,000
Municipal Engineering......	24,000	Municipal Engineer'g	72,000
Panama R R...	22,000	Panama R R	108,000
Total blasting caps.....	634,100	Total triple tape fuse...	1,542 800

DYNAMITE

Division	POUNDS			
	30 per cent	45 per cent.	60 per cent.	Total.
Colon Dredging..................	....	215,000	....	215 000
Gatun Locks..................	....	660,000	238,000	898 000
Gatun Dam..................	....	240,000	....	240,000
Chagres..................	360,000	840,000	....	1 200,000
Culebra..................	....	5,400,000	1,800,000	7,200,000
Pacific Locks and Dams..................	....	....	1,080,000	1,080,000
La Boca Dredging..................	....	97,800	100,000	197,800
Panama Railroad..................	....	112,500	112,500	225,000
Municipal Engineering..................	....	....	27,600	27,600
Total..................	360,000	7,565,300	3,358,100	11,283,400

ELECTRIC FUZES.

Division	SIZE AND NUMBER												
	10 feet	12 feet	14 feet	15 feet	16 feet	18 feet	20 feet	24 feet	30 feet	35 feet	40 feet	60 feet	Total
Colon Dredging............	......	......	......	......	......	......	18,000	......	18,000	......	......	......	36,000
Gatun Locks............	......	......	......	......	10,169	......	58,196	70,162	......	12,000	......	......	150,527
Gatun Dam............	2,000	......	......	......	......	......	......	6,000	6,000	4,000	......	......	18,000
Chagres............	......	......	......	......	4,800	......	15,000	......	15,000	......	12,000	2,400	49,200
Culebra............	......	......	......	......	......	......	72,000	48,000	60,000	60,000	......	......	240,000
Pacific Locks and Dams	2,700	......	700	......	......	3,255	8,100	8,100	700	......	......	......	23,555
*La Boca Dredging	......	......	......	......	......	......	......	......	......	......	......	......	......
Panama Railroad	......	......	......	2,250	......	......	......	......	2,250	......	......	......	4,500
Municipal Engineering..	......	1,625	......	......	......	......	1,625	......	......	......	......	......	3,250
Total	4,700	1,625	700	2,250	14,969	3,255	172,921	132,262	101,950	76 000	12,000	2,400	*525,032

*For the La Boca Dredging Division 14,000 pieces of two and three feet water-proof fuse for sub-marine blasting will be required.

An order will be placed for 536,800 feet of connecting wire, 244,000 feet for the Gatun Locks, 288,000 feet for the Chagres Division, and 4,800 feet for the La Boca Dredging Division. Three thousand feet of lead wire for submarine work will be required by the La Boca Dredging Division, and 12 gallons of insulating paint for the Chagres Division.

OFFICIAL CIRCULARS.

Acting Division Engineer.

TO ALL CONCERNED:

Effective June 1, 1908, Mr. G. B. Strickler will act as Division Engineer of the Pacific Division of Lock and Dam Construction, during the absence on leave of Mr. S. B. Williamson, Division Engineer.

(Sgd.) WM. L. SIBERT,
In Charge, Department of Lock and Dam Construction.

Approved:
(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.
Culebra, June 1, 1908.

Minimum and Maximum Age Limits.

CIRCULAR NO. 176.

The following minimum and maximum age limits have been adopted for positions on the Isthmus, effetive June 1, 1908, and no variations may be made therefrom in the employment of gold employes on the Isthmus;

Positions—	*Minimum and maximum age at time of employment*
Rodmen..............................	20 to 30 years
Firemen (fire department)..	20 to 35 years
Timekeepers, policemen, locomotive engineers, trainmen, levelmen and transitmen..............................	20 to 40 years
All other positions..............	20 to 45 years

GEO. W. GOETHALS,
Chairman.
Culebra, May 28, 1908.

The steamship *Thelma* arrived at Cristobal on June 9 with a cargo of piles, stringers, steel pipe and bends, tees, etc., for the Commission.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, June 6, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Allison, Mort.
Anderson, J. L.
Anthiney, Augustus
Azema, M. C.
Bassnell, Hamer
Bradshaw, Geo.
Busha, Clarence
Chairman, A.
Chamberlain, Ralph E.
Church, Sydney
Clark, H. R.
Fulton, Robert Bruce
Gilling, George
Hall, H. F.
Harp, John L.
Harris, Bill
Hedemark, Miss Bessi
Hews, Herbert S.
Johnston, David
Keefe, Sterrit
Knight, Walter
Lamson, Culboe
London, J. G.
McPherson, Jas.
Marchand, Raulien
Mason, Thom
Morrison, T. B.
Puitt, J B.
Rohe, Henry
Sheridan, W. E.
Steptoe, Ed.
Sturdevant, P. P.
Sullivan, William J.
Van Fleet, W. H
Walker, W R.

Concert.

By the I. C. C. Band at Culebra, C. Z. Sunday, June 14, at 2.30 p. m.

PROGRAM.

1 March..................*Waldmere*.................. Losey
2 Selection..............*The Grand Mogul*....Luders
3 Waltz..................*La Serenata*.......... Jaxone
4 Dance....................*Little Kinkies*...........Bendix
5 Selection..............*Reminiscences of the South*...........Solomon
6 Characteristic.....*The Dawn of Love.* Bendix
7 Medley..................*Popular Songs*........Lampe
8 {..........................a *Experience*...... ......Caryll
  {..........................b *Iola*.......................Johnson
9 Overture..............*Lustspiel*...........Keler Bela
10 Finale..................*Crescent*.......... ...Rollinson

CHAS. E. JENNINGS.
Director.

Rainfall from June 1 to 6, 1908, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Maximum in one day.	Total.
Atlantic Slope.		
Cristobal..............................	.72	1.20
Brazos Brook..............................	2.03	2.44
Gatun..............................	1.65	2.17
Bohio..............................	2.64	3.25
Tabernilla..............................	.69	1.22
San Pablo..............................	.34	.82
Porto Bello..............................	3.87	6.58
Central Section.		
Bas Obispo..............................	1.00	1.82
Gamboa..............................	1.60	2.02
Empire..............................	2.04	3.03
Camacho Dam..............................	2.38	3.60
Culebra..............................	1.76	2.79
Rio Grande..............................	1.83	3.10
Pacific Slope.		
Pedro Miguel..............................	1.24	2.74
La Boca..............................	1.53	3.66
Ancon..............................	1,44	2.95
Upper Chagres.		
Alhajuela..............................	2.00	2.17

Joseph Ogeai, (black) a native of Martinique, who was arrested at Ancon on May 25, charged with robbing bachelor quarters at Ancon, was convicted in the Court of the First Judicial Circuit on June 6, and sentenced to the penitentiary for two years.

The following steamers have recently arrived at La Boca: May 31, *City of Para*, from San Francisco; June 3, *Manavi*, from Guayaquil, and *Barracouta*, from Central America; June 5, *Ecuador*, from Guayaquil, and *Alexandria*, from North Pacific.

COMMISSARY DEPARTMENT.

Deposit Accounts and Standing Orders.

PANAMA RAILROAD COMPANY,
OFFICE OF GENERAL MANAGER.
Colon, R. P., June 1, 1908.

On or about the 27th of each month, purchasers through the Commissary Department, having deposit accounts and standing orders for bread and ice, are charged with those articles for the following month, provided that sufficient funds remain to their credit on that date. Post-cards, showing amounts so charged, are mailed on the day charges are made. All other purchases charged against deposit accounts are covered by paid orders issued on the day such purchases are made; and card-board copies of these paid orders, showing balance to account after amount charged thereon has been deducted, are at once mailed. By taking careful notice of these cards, purchasers will know exactly how much remains to their credit on the 27th of each month; and, if this balance is not sufficient to ensure delivery of bread and ice for the following month, purchasers should immediately forward additional coupons

HIRAM J. SLIFER,
General Manager.

NOTICE.

Kerosene oil is shipped from the Commissary Department in a special car but once every week This car goes forward on Thursdays. Orders, therefore, should reach the Commissary Department not later than Tuesday morning, to insure delivery on the following Thursday.

HIRAM J. SLIFER,
General Manager.

COMMISSARY PRICES

For week beginning June 10 :

The Commissary Department reports that on June 9 it was out of the following cold-storage articles:

Steak, tenderloin; sausage, bologna, and frankfutter; pigs' tongues, salted, and pickled and cooked; geese; cheese, Phila. cream; milk; milk, Briarcliff; grape fruit, apples, parsnips, dandelion, spinach, celery, rhubarb, wax beans, tomatoes, radishes, lettuce, cucumbers, egg plant, turnips and strawberries.

A full supply of these articles is expected on steamers June 10 and 11.

NOTICE OF PRICE CHANGES

		Old Price. cts.	*New Price* cts.
Milk, evaporated, Van Camp's, pints	tin	9	9½
Pants, white, duck, stock No. 39,309	pr	1 88	1.80
Bars, mosquito gauze, stock No 39,764	ea	1.55	1.70
Extract, Pond's, small, stock No. 34,255	bot	23	40
Listerine, 14-ounce, stock No. 49,155	do	83	75
Listerine, 7 oz stock No. 49,156	do	42	40
Listerine, 3-oz., stock No 49,157	do	21	20

NEW ARTICLES

		Price cts
Rockers, ladies', No. 6830b, stock No. 42,113	each	11.20
Rockers, ladies', spring, No. 7687b, stock No. 41,979	do	17.15
Rockers, ladies' comfort, No. 6838b, stock No. 42,113	do	7.35
Rockers, golden oak, No. g8-6, stock No. 41,985	do	4 40
Rockers, golden oak, No. g410 6, stock No. 41,986	do	4 55
Rockers, golden oak, No. g411-6, stock No. 41,987	do	4.55
Rockers, golden oak, No. 593-6, stock No. 41,988	do	4.05
Rockers, golden maple, No. 783-3, stock No. 41,991	do	3.15
Rockers, golden maple, No. 784-3, stock No. 41,992	do	3.50
Tables, golden oak, No. 5311, stock No. 41,989	do	3.15
Roach food, Peterman's	pkg	10
Cigarettes, Havana, Bock & Co., arroz, 10 to carton, stock No. 42,121	pack	10
Cigarettes, Havana, Bock & Co., arroz, 20 to carton, stock No. 42,122	do	20
Cigarettes, Havana, Bock & Co., pectoral, 10 to carton, stock No. 42,123	do	10
Cigarettes, Havana, Bock & Co., pectoral, 20 to carton, stock No. 42,124	do	20
Cigarettes, Havana, Bock & Co., Cabanas, arroz, 10 to carton, stock No. 42,125	do	10
Cigarettes, Havana, Bock & Co., Cabanas, arroz, 20 to carton, stock No. 42,126	do	20
Cigarettes, Havana, Bock & Co., Cabanas, pectoral, 10 to carton, stock No. 42,127	do	10
Cigarettes, Havana, Bock & Co., Cabanas, pectoral, 20 to carton, stock No. 42,128	do	20
Brushes, shaving, Badger, hair, stock No. 42,134	each	50
Brushes, shaving, assorted, stock No. 42,147	do	75
Brushes, tooth, antiseptic, stock No. 42,146	do	20
Soap, tar, Ricksecker's, stock No. 42,165	cake	16
Soap, Golf Queen, Ricksecker's, stock No 42,166	do	20
Cold cream, 4 oz jars, stock No. 42,167	jar	42
Water, toilet, No. 404, stock No. 42,168	bot	40
Water, toilet, No 707, stock No. 42,169	do	80
Water, toilet, No. 28, stock No 42,171	do	70
Half hose, No. 3,421 stock No. 42,118	pair	25
Half hose, No. 511, stock No. 42,119	do	15
Belts, No. 301, stock No 42 148	each	50
Belts, No. 303, stock No. 42,149	do	34
Belts, No. 281 and No. 244, stock No. 42,151	do	65
Belts, No 310, stock No. 42,152	do	1.75
Belts, No. 270 and No. 220, stock No. 42,133	do	1.35
Belts, No. 311, stock No. 42,154	do	1.00
Belts, No. 382, stock No. 42,155	do	95
Belts, No. 309 and No 207, stock No. 42,156	do	90
Belts, No. 381 and No. 343, stock No. 42,157	do	85
Suspenders, G. O., stock No. 42,172	pair	50
Pins, duplex, safety, stock No. 42,132	gross	72
Quilt, bridal, stock No. 42,133	each	1.70
Sheets, Salem, 90x90, stock No. 42,135	do	1 05
Shoes, white canvas, Oxfords, stock No. 42,136	pair	1.70
Boilers, wash, No. 208, stock No. 42,139	each	95
Boilers, wash, No. 209, stock No. 42,141	do	1.00
poons, basting, 14 inch, stock No. 42,163	do	8
Soons, basting, 18 inch, stock No. 42,164	do	10
Pitchers, white glass, 1½ quarts, stock No. 42,142	do	35
Pitchers, white glass, 2 quarts, stock No. 42,143	do	45
Cruets, vinegar, No. 4. stock No. 42,144	do	25
Bowls, ice, stock No. 42,145	do	35
Pans, dish, 10 quarts, stock No. 42,158	do	25
Pans, dish, 14 quarts, stock No. 42,159	do	30
Pans, dish, 17 quarts, stock No. 42,161	do	35
Pans, dish, 21 quarts, stock No. 42,162	do	40
Turkeys, roast, 2s	tin	1 15
Milk, evaporated, Peerless, pints	do	9½
Shoes, stormovers, stock No. 42,198	pair	80
Pants, running, stock No. 42,212	do	40
Shirts, athletic, stock No. 42,213	each	40
Shirts, laundered, stock No. 42,216	do	85
Pants, khaki, stock No. 42,222	pair	1.60
Suits, wash, "Battleship," No. s2706 and s2707, stock No. 42,223	each	6 20
Suits, wash, "Battleship," No. s2906 and s2907, stock No 42,224	do	7 50
Cases, dress suit, leather, stock No 42,223	each	10.00
Cases, dress suit, leather, stock No 42,234	do	9.35
Trunks, steamer, 36-inch, stock No 42,226	do	10 70
Trunks, canvas and wood, 28 inch, stock No. 42,218	do	6 50
Trunks, canvas and wood, 32 inch, stock No. 42,219	do	7.50
Trunks, canvass and wood, 36 inch, stock No. 42,221	do	8.15
Brooms, whisk, No. 9365, stock No. 42,215	do	15
Buttons, Universal, No 22, stock No 42,199	doz	2
Buttons, Universal, No. 23, stock No 42,211	do	3
Muslin, Fruit of the Loom, stock No 42 231	yard	12
Muslin, Balma Mills, stock No. 42,232	do	9

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON

Prinz Joachim	H.-A.	Saturday	June	6
Panama	P.R.R.	Monday	June	8
Pr. Eitel Friedrich	H.-A.	Friday	June	12
Allianca	P.R.R.	Saturday	June	13
Magdalena	R.-M.	Saturday	June	13
Finance	P.R.R.	Thursday	June	18
Pr Aug. Wilhelm	H.-A.	Saturday	June	20
Esperanza	P R R.	Wednesday	June	24
Prinz Sigismund	H.-A.	Friday	June	26
Orinoco	R.-M.	Saturday	June	27
Advance	P.R.R	Monday	June	29
Colon	P.R.R.	Friday	July	3
Prinz Joachim	H.-A.	Saturday	July	4
Allianca	P.R.R.	Wednesday	July	8
Pr Eitel Friedrich	H.-A.	Friday	July	10
Atrato	R.-M.	Saturday	July	11
Finance	P.R.R.	Monday	July	13
Esperanza	P.R.R	Saturday	July	18
Pr. Aug Wilhelm	H.-A.	Saturday	July	18
Advance	P.R.R	Thursday	July	23
Prinz Sigismund	H.-A.	Friday	July	24
Clyde	R.-M.	Saturday	July	25
Colon	P.R R.	Tuesday	July	28
Prinz Joachim	H.-A.	Saturday	Aug.	1
Allianca	P.R.R.	Monday	Aug.	3
Finance	P.R.R	Friday	Aug.	7
Pr Eitel Friedrich	H.-A.	Friday	Aug.	7
Trent	R.-M.	Saturday	Aug.	8
Panama	P.R.R	Wednesday	Aug.	12
Pr. Aug. Wilhelm	H.-A.	Saturday	Aug	15
Advance	P.R.R.	Monday	Aug.	17
Prinz Sigismund	H.-A.	Friday	Aug.	21

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon

FROM COLON TO NEW YORK

Esperanza	P.R.R.	Thursday	June	11
Advance	P.R.R.	Tuesday	June	16
Orinoco	R.-M.	Tuesday	June	16
Panama	P.R.R.	Sunday	June	21
Prinz Joachim	H.-A.	Tuesday	June	23
Allianca	P.R.R	Friday	June	26
Atrato	R.-M.	Tuesday	June	30
Finance	P.R.R.	Wednesday	July	1
Esperanza	P.R.R.	Monday	July	6
Pr. Aug. Wilhelm	H.-A.	Tuesday	July	7
Advance	P R R.	Saturday	July	11
Clyde	R.-M.	Tuesday	July	14
Colon	P R R	Thursday	July	16
Allianca	P R.R.	Tuesday	July	21
Prinz Joachim	H.-A.	Tuesday	July	21
Finance	P.R.R	Sunday	July	26
Trent	R.-M.	Tuesday	July	28
Esperanza	P.R.R	Friday	July	31
Pr. Aug. Wilhelm	H.-A.	Tuesday	Aug.	4
Advance	P.R.R.	Wednesday	Aug.	5
Colon	P R R	Monday	Aug.	10
Tagus	R.-M.	Tuesday	Aug.	11
Allianca	P.R R	Saturday	Aug.	15
Prinz Joachim	H.-A.	Tuesday	Aug	18
Finance	P R R	Thursday	Aug.	20

FROM NEW ORLEANS TO COLON

Harry T. Inge	U F.C.	Saturday	June	6
Ellis	U.F.C.	Saturday	June	13
Preston	U F.C.	Saturday	June	20
Harry T. Inge	U F.C.	Saturday	June	27

FROM COLON TO NEW ORLEANS

Harry T. Inge	U.F.C.	Tuesday	June	16
Ellis	U.F C.	Tuesday	June	23
Preston	U.F.C.	Tuesday	June	30

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Magdalena	R.-M.	Tuesday	June	23
Orinoco	R.-M.	Tuesday	July	7
Atrato	R.-M.	Tuesday	July	21
Clyde	R.-M.	Tuesday	Aug.	4
Trent	R.-M.	Tuesday	Aug.	18
Tagus	R.-M.	Tuesday	Sept.	1

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston Jamaica, for New York

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's Line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company despatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Mercian*, about June 15, and *Barbadian*, about June 27.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, JUNE 17, 1908. No. 42

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Chairman's Monthly Report.

The report for the month of May of the Chairman of the Isthmian Canal Commission is published in other columns of this issue of THE CANAL RECORD. It shows that the total excavation on all divisions of the Canal during the month was 2,702,897 cubic yards, of which 1,608,045 cubic yards were taken out by steam shovels and 1,094,852 cubic yards by dredges. The total amount excavated from the Canal prism was 2,525,887 cubic yards. Compared with that for May, 1907, the total excavation was 1,685,238 cubic yards greater, and the mean rainfall of 14.7 inches was 7.6 inches greater. Compared with April, 1908, the total excavated in May was 593,200 cubic yards less, and the mean rainfall 12.8 inches greater. The total labor force actually at work on the last day of May was 21,036 men. The death rate in the Canal Zone was 10.44 per thousand as compared with 30.15 for May, 1907. The estimated loss in the subsistence operations was $4,708.65 as compared with $5,007.76 for the month of April.

The total excavation in the Culebra Division during the month was 960,840 cubic yards, a decrease of 281,734 cubic yards as compared with the amount excavated in April. This decrease was due principally to the heavy rainfall. Of this amount excavated 930,179 cubic yards were removed from the Canal prism, and 30,661 cubic yards from the Obispo Diversion. Compared with the work performed during the corresponding month of 1907, the total excavation by steam shovels in the Culebra Division was 39 per cent. greater, and the average output per shovel per day was about 10 per cent. greater. The rainfall in May, 1908, was about 85 per cent. greater than in May, 1907. The number of working days this year was 25 against 26 in the same month last year; the average number of steam shovels working, 41.56 against 31.69 in May, 1907; the average amount of excavation per shovel per day, 925 cubic yards, against 838 in May of last year, and the average amount excavated per shovel per month was 23,119, against 21,785 cubic yards in May, 1907.

At the Gatun lock site an average of 5.76 steam shovels were at work during the month, excavating 166,410 cubic yards, of which amount 27,595 cubic yards were taken from the site for the cableways. At the Gatun dam and spillway an average of 5.1 steam shovels worked during the month excavating a total of 100,337 cubic yards. At the Miraflores lock and dam site 74,049 cubic yards were excavated and the examination of the sub-stata was practically completed. The total excavation on the Chagres Division was 244,143 cubic yards.

In the relocation of the Panama railroad 22,950 cubic yards of material were excavated, and 142,922 cubic yards were placed in embankments; 3,738 feet of permanent track were laid, making the total at the end of May 36,579 feet.

New Reservoir at Ancon.

A concrete reservoir 122 feet in diameter and 11 feet 6 inches deep, with a capacity of 1,000,000 gallons, has been authorized as reserve fire protection for Ancon, La Boca, and Panama. The present water supply for these places is carried from the Rio Grande reservoir in a 16-inch main to Panama. A 6-inch branch to La Boca serves that village, and for Ancon the water is pumped through an 8 inch main to a 50,000-gallon tank located on the hill above the Administration Building. From the new reservoir a new 10-inch main will be laid along the Zone line and La Boca roads and will furnish an extra supply of water in case it is needed. The pumping plant now in use will raise the water to the new reservoir.

New Buildings at the Shops.

An engine house and a car repair shed at Gorgona, an extension to the boiler shop at Empire and a car repair shed at Pedro Miguel have been authorized.

Work on the Gorgona car shed is well under way. It will be 600 feet long, 118 feet wide over the eaves and will cover seven tracks. It will be used for heavy repairs on wood and steel cars. The new engine house at Gorgona will be 150 feet long, 50 feet wide, and will shelter from six to eight locomotives. Two engine washout pits built of concrete will run the full length of the building. Annexed to the engine house will be a small sand house where sand will be dried over a specially constructed stove and then lifted by air to storage hoppers, whence it will be delivered by gravity to the engines. Work on this building will begin in the near future.

A one story extension to the boiler house at Empire will be under construction in a few weeks. The building will be 224 feet long, 50 feet wide, and will have a runway for a 20-ton traveling crane. This shop will be used in making repairs to steam shovel booms and dippers, and in handling large structural iron work.

The car repair shed at Pedro Miguel will be 260 feet long, 38 feet over the eaves, and will cover two tracks. It will be used to protect the men at work on the light repairing to cars done here, the heavy repair work being done at Gorgona and Empire. All these buildings will be of frame construction with galvanized iron roofs.

The East La Boca Commissary.

The new Commissary at East La Boca was opened for business on June 15. In addition to the usual stock of commissary goods carried, it has been equipped with a large cold storage space and is prepared to furnish a full supply of cold storage articles. Orders for supplies from the La Boca commissary will be taken from residents of Ancon and La Boca by an order clerk every afternoon for delivery the following morning.

Deposit accounts will be opened and will be handled in the same manner as they have been at the Cristobal Commissary. Purchasers with deposit accounts living at Ancon and La Boca are requested to transfer their accounts from the Commissary at Cristobal to the La Boca Commissary.

New Market at Cristobal.

It was recently proposed that the public market at Cristobal, which is near the Panama railroad station on the opposite side of the track from the Commissary building, be abandoned, and that a new market building be constructed, in the Folks river district. The present market building was constructed before the Panama Railroad Commissary inaugurated its cold storage system, and the location was selected to meet the convenience of the American residents of Cristobal who purchased in the market their daily supplies of fresh meats and vegetables. When the cold storage system was put in operation, the market was no longer patronized by the American employes, and its sales are now made almost entirely to West Indians. The interests of these customers will be best served by the removal of the market to the Folks river district, which is in the center of the West Indian population.

The present market building will be purchased from the Canal Zone Government by the Panama Railroad Company, for $4,500, U. S. Currency, its appraised value as determined by a committee consisting of Mr. W. G. Tubby, chairman; Mr. R. Budd, representing the Panama Railroad Company, and Mr. Geo. L. Campen, representing the Canal Zone Government, and will be used

NOTES OF PROGRESS.

(*Continued*)

as a printing office, and for storage purposes by the Commissary.

A site has been selected for the new building on lots 2 and 3 of block 2, of the Panama Railroad Company's plat of the Folks river district, in Cristobal. The new building will be similar to the markets recently constructed at Pedro Miguel, Paraiso and Las Cascadas, but larger in all dimensions. It will consist of 20 rectangular stalls, 8 by 8 feet, arranged back to back, 10 on either side, surrounded by an 8-foot concrete sidewalk. The eaves of the building will extend beyond the curb line. The new market should be ready for occupancy prior to August 1.

Water Supply at Paraiso.

Work will begin in a few days on a six-inch main along the highway from Pedro Miguel to Paraiso from which water will be pumped into a 50,000-gallon tank, to be located between the two villages, which the new road makes virtually one. The present water supply is taken from the 16-inch main along the railroad track in a six-inch main across Culebra Cut, whence it is raised to a 15,000-gallon tank on the hill. The constant lowering of the level of the Cut makes frequent moving of the main necessary, and the slide at Paraiso has already broken the main in one place and is menacing the storage tank. The change in the method of supply will prevent inconvenience from either of these sources.

Boiler Inspection Service.

In connection with Circular No. 177, which is published in this issue of The Canal Record, it should be noted that the boiler inspection service has been organized since April 12, 1907, when one inspector, the present chief inspector, was detailed to this work. The service was extended September 12, 1907, when three assistants were assigned to work under the chief inspector. Between that date and June 1, 1908, this force inspected 3,052 boilers, entered 341, gave the hydrostatic test to 290, set the safety valves on 211, found 421 defective steam gauges, calibrated 749 steam gauges, and made 2,823 recommendations.

New Ward for Women at Ancon Hospital.

House No. 49, in the Ancon hospital grounds, near the Protestant chapel, has recently been repaired and repainted and made into an additional ward for women, to be known as ward No. 16. It will be ready for use in the near future.

During the French regimé this was known as the "St. Charles" building and was used as a ward for officers. It was the only two-story hospital building constructed by the French at Ancon. Since American occupation the upper floor has been used for living quarters and the lower floor as a mess for white employes of the hospital.

The main building is 122 feet long, 25 feet wide and two stories high, with a seven-foot veranda enclosed by wire screening entirely around both stories. At the rear is a small building 10 by 52 feet and two stories high. The lower floor is occupied by a ward with 20 beds for colored women, a nurse room, a waiting room, a small ward with 6 beds for white women, a maternity ward, a dressing room and a diet kitchen. On the upper floor are fourteen private rooms, each opening on the veranda, and a serving room. In addition, there are several bath rooms and linen closets on each floor.

Fourth of July Celebration at Cristobal.

At a meeting of the executive committee of the Cristobal Fourth of July celebration, held Wednesday evening, June 10, an appropriation of $300 was allowed for distribution among the following features: ragamuffin parade, boat races, 50-yard sack race, 50-yard three-legged race, obstacle race, 100-yard dash, Alcalde's race (relay), shot put, tug-of-war (5-men teams), boys' pole vault, boys' high jump, boys' 75-yard dash, boys' ¼-mile bicycle race, (events for boys—age limit 16 years), greased pole and 100-yard dash for fat men (200 pounds and over). An appropriation of $100 was allowed for music and one of $100 for hose races between volunteer companies of the Canal Zone Fire Department. The latter event will be under the direction of Mr. C. F. Koerner, Assistant Chief at Cristobal.

Mr. Lowe, chairman of the finance committee, reported cash subscriptions received of $937. Several hundred dollars were reported subscribed but not yet collected.

Mr. Stickel, chairman of the fireworks committee, reported that an order had been placed in the United States for $600 worth of fireworks.

The celebration will commence on the evening of July 3 with a dance in the Cristobal club house. The Fourth will be given over to the various sports. The fireworks display, a water parade and a band concert will be held in the evening. An effort will be made to have a special train, to leave Colon about 10.30 p. m. for the accommodation of visitors. A general invitation is extended to all the towns along the line to participate in the celebration.

Old French Equipment in Use at Colon.

Much of the floating equipment of the Colon Dredging Division was taken from the old French scrap heap in Folks river. Ladder dredge No. 1, put in commission three years ago and ladder dredge No. 6, put in commission two years ago, are both at work in Limon bay. Clapets Nos. 3, 4, 12 and 14, raised and overhauled three years ago, are serving the dredges. Clapet No. 2, recently raised is now in the dry dock at Cristobal and will soon be in commission. Clapet No. 1 will be raised this summer.

Church and Lodge Buildings Authorized.

A type "church and lodge" building at Las Cascadas was authorized at the meeting of the Commission, June 9, and it was directed that the erection of a building of the same type, at Gatun, authorized some time ago, but construction of which was suspended, be continued. This type of building is two stories high, 70 feet long not including veranda, and 36 feet wide. On the ground floor are a lobby, a toilet room for women, a retiring room, and an assembly hall or church 60 feet by 36 feet. The second floor consists of a lodge room 60 feet by 36 feet with three platforms, two rooms 18 by 10 feet, and one room 18 by 20 feet. The estimated cost is $11,000. Bids for the construction of the building at Las Cascadas will be opened by W. G. Tubby, Chief of the Division of Material and Supplies, June 27.

The building at Las Cascadas was authorized at the request of the employes at that place, and will be used by 60 church members, 35 Sunday school members, the Ladies' Nonpareil Club of 30 members, Masonic club of 30 members; the Knights of Pythias with 44 members; the Improved Order of Red Men, with 66 members; the Improved Order of Kangaroos, with 152 members; the locomotive engineers, with 215 members, and the railway conductors, with 215 members; a total of 847 people.

Dredge Construction at Cristobal.

Pipe-line dredge No. 83, under construction at the Cristobal Dry Dock, has been tested and is now ready for work. This is one of the three 20-inch, pipe-line dredges built at the Maryland Steel Company's yard, at Baltimore, and shipped to the Isthmus knocked down. The first shipment arrived December 15, 1907, and the last March 26, 1908. Dredge No. 82 was the first to be constructed. It was put into commission a month ago at Gatun, where it is pumping out the silt in the old channel in the Chagres river in preparation for the foundation of the dam. The third of these dredges, No. 85, already has its boilers and machinery installed and the superstructure and quarters are nearly completed. It will go into commission about August 1.

A second 50,000-gallon tank has been erected at Barbacoas for the San Pablo water supply. By this increase in storage capacity the San Pablo reserve may be brought up to 100,000 gallons.

Views of a Recent Visitor on Commission Hotels.

These hotels are the boarding places of the Commission's American unmarried employes, who are charged 30 cents a meal, while visitors pay 50 cents. Thirty cents a meal suggests to the average New Yorker the lead-like bread and crowded, stuffy tables of a Childs' quick-lunch restaurant. I have eaten at many of the Commission's restaurants, and have invariably obtained better meals than I ever secured for the same money in any large American city. Soup, a good piece of steak, beef or fowl, more vegetables than I could eat, dessert, iced tea and coffee—all of good quality—were served in reasonable portions at tables placed so as to avoid any suggestion of crowding. I have been on construction work in many parts of America and Europe, and never saw anywhere such good commissary service as exists on the Isthmus, which is all the more astonishing when it is considered that practically all the supplies must come from the United States. I was told that all the food supplies are purchased by samples, and the inspection of the materials delivered is under the charge of the food experts of the Department of Agriculture, the Canal Commission not being directly responsible for the quality of the supplies. An engineer who proposes to visit the Isthmus will do well to buy a 30-cent meal at one of the "quick-lunch" indigestion centers in one of our large cities just before coming down here, for he will then have something with which to compare the food furnished to canal employes for the same sum. I know nothing about the places where the colored people eat, but I visited one of the messes for white foreign laborers. Everything seemed clean and well managed, and the food was of the same general nature—stews, thick soups, hard-burned coffee and the like, that I have seen the same class of laborers eat in southern Europe, under much less cleanly surroundings, however.—*Letter in Engineering Record, May 30, 1908.*

COMPENSATION FOR EMPLOYES.

Text of the Bill Passed by Congress and Approved by the President.

Provision for partial compensation for injuries sustained in the course of duty by persons employed on hazardous work in the Government service is made in the following act of Congress which was approved by the President on May 30, 1908:

An act granting to certain employes of the United States the right to receive from it compensation for injuries sustained in the course of their employment.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That when, on or after August first, nineteen hundred and eight, any person employed by the United States as an artisan or laborer in any of its manufacturing establishments, arsenals, or navy-yards, or in the construction of river and harbor or fortification work, or in hazardous employment on construction work in the reclamation of arid lands, or the management and control of the same, or in hazardous employment under the Isthmian Canal Commission, is injured in the course of such employment, such employe shall be entitled to receive for one year thereafter, unless such employe, in the opinion of the Secretary of Commerce and Labor, be sooner able to resume work, the same pay as if he continued to be employed, such payment to be made under such regulations as the Secretary of Commerce and Labor may prescribe: Provided, That no compensation shall be paid under this act where the injury is due to the negligence or misconduct of the employe injured, nor unless said injury shall continue for more than fifteen days. All questions of negligence or misconduct shall be determined by the Secretary of Commerce and Labor.

SEC. 2. That if any artisan or laborer so employed shall die during the said year by reason of such injury received in the course of such employment, leaving a widow, or a child or children under sixteen years of age, or a dependent parent, such widow and child or children and dependent parent shall be entitled to receive, in such portions and under such regulations as the Secretary of Commerce and Labor may prescribe, the same amount, for the remainder of the said year, that said artisan or laborer would be entitled to receive as pay if such employe were alive and continued to be employed: Provided, That if the widow shall die at any time during the said year her portion of said amount shall be added to the amount to be paid to the remaining beneficiaries under the provisions of this section, if there be any.

SEC 3. That whenever an accident occurs to any employe embraced within the terms of the first section of this act, and which results in death or a probable incapacity for work, it shall be the duty of the official superior of such employe to at once report such accident and the injury resulting therefrom to the head of his Bureau or independent office, and his report shall be immediately communicated through regular official channels to the Secretary of Commerce and Labor. Such report shall state, first, the time, cause and nature of the accident and injury and the probable duration of the injury resulting therefrom; second, whether the accident arose out of or in the course of the injured person's employment; third, whether the accident was due to negligence or misconduct on the part of the employe injured; fourth, any other matters required by such rules and regulations as the Secretary of Commerce and Labor may prescribe. The head of each Department or independent office shall have power, however, to charge a special official with the duty of making such reports.

SEC. 4. That in the case of any accident which shall result in death, the persons entitled to compensation under this act, or their legal representatives, shall, within ninety days after such death, file with the Secretary of Commerce and Labor an affidavit setting forth their relationship to the deceased and the ground of their claim for compensation under the provision of this act. This shall be accompanied by the certificate of the attending physician setting forth the fact and cause of death, or the nonproduction of the certificate shall be satisfactorily accounted for. In the case of incapacity for work lasting more than fifteen days, the injured party desiring to take the benefit of this act shall, within a reasonable period after the expiration of such time, file with his official superior, to be forwarded through regular official channels to the Secretary of Commerce and Labor, an affidavit setting forth the grounds of his claim for compensation to be accompanied by a certificate of the attending physician as to the cause and nature of the injury and probable duration of the incapacity or the nonproduction of the certificate shall be satisfactorily accounted for. If the Secretary of Commerce and Labor shall find from the report and affidavit or other evidence produced by the claimant, or his or her legal representatives, or from such additional investigation as the Secretary of Commerce and Labor may direct, that a claim for compensation is established under this act, the compensation to be paid shall be determined as provided under this act and approved for payment by the Secretary of Commerce and Labor.

SEC. 5. That the employe shall, whenever and as often as required by the Secretary of Commerce and Labor, at least once in six months, submit to medical examination, to be provided and paid for under the direction of the Secretary, and if such employe refuses to submit to or obstructs such examination his or her right to compensation shall be lost for the period covered by the continuance of such refusal or obstruction.

SEC. 6. That payments under this act are only to be made to the beneficiaries or their legal representatives other than assignees, and shall not be subject to the claims of creditors.

SEC. 7. That the United States shall not exempt itself from liability under this act by any contract, agreement, rule, or regulation, and any such contract, agreement, rule or regulation shall be pro tanto void.

SEC. 8. That all acts or parts of acts in conflict herewith or providing a different scale of compensation or otherwise regulating its payment are hereby repealed.

OFFICIAL CIRCULARS.

Boiler Inspection Service.

CIRCULAR No. 177.

1. A general boiler inspection service is not a function that can, or should be considered to be established or exercised exclusively or principally by or for the benefit of the mechanical or any other division. It is for the common welfare and its necessity originates from a due regard for life and property The attainments of the average fire room force are universally considered a sufficient reason to necessitate a system of boiler inspection.

2. So far as the Commission is concerned, as a general proposition, there would be no objection to each division maintaining its own boiler inspection service and being entirely self-contained, except for the fact that this service can be performed at a less cost and the standard can be kept more uniform in all divisions by having this service performed by the same employes all along the work.

3. The fact that the boiler inspection is performed in a division by employes not directly subject to the Division Engineer's orders does not, and can not be taken, to reduce his authority in the management and operation of his boilers.

4. The fact that boiler inspectors are not directly accountable to the Division Engineer gives them no authority whatever over the Division Engineer, or any of his employes, or to prescribe any of the methods to be employed in the care, operation and maintenance of the boiler plants. Such authority can be exercised only by the Chief Engineer.

5. The duty of the boiler inspectors is to inspect and report, and their responsibility ceases there. They are not called upon to make verbal comment, to criticise, or to enter into any personal controversy with employes. All comments, reports, etc., will be made in writing as a portion of their official reports. Their only power and authority is given them by the Chief Engineer and is limited entirely to the examination, inspection and report on the condition and operation of the boilers, unless they receive some other special directions, or, in case the Division Engineer should make request for any other information in the line of their duty, in which case the inspector will comply with such request.

6. The boiler inspection service will be considered as deriving its entire authority and orders directly from the Chief Engineer, and should be respected and obeyed accordingly; the fact that it is placed under the Mechanical Division is merely for the purpose of convenience and organization. The aim of the inspectors will not be to discover trifling and unimportant defects, but to bear in mind that the main idea and desire of the Commission is to maintain the boilers in efficient operation at a minimum cost for repairs and they will assist in every way possible the work of those who are charged with the care and operation of the boilers.

7. Any general policy such as the use of boiler compound will be first determined and approved by the Chief Engineer, upon proper recommendation, and the Division Engineers will be responsible for the condition of their boilers. In every case, of course, and as a matter of principle, the standard for the condition of boilers should be only such as can be defended from an economical standpoint, as no labor should be spent on the repair and care of boilers that is not justified from practical considerations, such as cost, increased efficiency, due regard to order and neatness, etc. The boiler inspector will furnish a report directly to the Division Engineer and a copy of the same to the Superintendent of Motive Power and Machinery. Responsibility as to action on these reports will lie with the Division Engineer. If all the recommendations are acquiesced in by him, the matter will then be closed. If the Division Engineer dissents from some of the recommendations he receives as to the necessity and desirability of the repairs that should be undertaken, the following will be the regular procedure to properly cover this situation: When a boiler inspector, experienced and presumably competent, acting under proper authority, makes a recommendation which is not acquiesced in by the Division Engineer, the case will be referred by the latter to the Head of his Department. It will be understood that all recommendations made by the Boiler Inspector are concurred in and will be substantially carried out by the Division Engineer, unless the latter forwards a statement to the head of his department, reporting the items on which he dissents from the Boiler Inspector's report.

8. In so far as the Panama Railroad Company is concerned, substitute in the foregoing paragraphs "General Manager of the Panama railroad" for "Head of Department," and "Officials in charge of boilers of the Panama Railroad Company as designated by the General Manager" for "Division Engineer."

GEO. W. GOETHALS,
Chairman and Chief Engineer,
Isthmian Canal Commission
President, Panama Railroad Company.

Culebra, May 28, 1908.

Examiner of Accounts.

CIRCULAR No. 178.

Mr. Walter W. Warwick is appointed Examiner of Accounts, vice Mr. H. L. Stuntz, transferred to the Panama Railroad Company,

Effective this date.

GEO. W. GOETHALS,
Chairman.

Culebra, May 21, 1908.

Regulations for Requisitions.

CIRCULAR No. 181.

The regulations of the United States Treasury Department require that the object for which any and all supplies are to be used be shown on the face of every requisition and award.

Requisitions and awards hereafter prepared without such information will be returned to the head of the department from which they originated. The Commissary Department will also show this information in invoices rendered by them against the departments of the Isthmian Canal Commission, so that the Disbursing Officer, the Examiner of Accounts, and the Auditor for the War Department may readily determine the purpose for which the articles covered by invoices, or bills, were obtained.

It is also desired that the "number of articles," "the unit price" and "amount" be shown on all requisitions and awards as well as on bills and invoices.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, June 12, 1908.

The following steamers have recently arrived at La Boca: June 7, Italian cruiser *Puglie*, from Callao; June 8, *Mapocho*, from Valparaiso, and *Hornelen*, from northern ports; June 10, *Peru*, from San Francisco. Departures were: June 10, *Sehome*, for northern ports; June 11, *City of Para*, for San Francisco; June 12, *Ecuador*, for Buenaventura, and cruiser *Puglie*, for San Francisco.

SOCIAL LIFE OF THE ZONE.

Woman's Clubs and Other Features.

A card party was given by the Gatun Woman's Club before the summer recess. Twenty five tables were provided for the card players and the tournament was followed with refreshments served under the direction of Mrs. Stevenson. The club will resume its work the last week in September, when an open meeting will be held. In the past year good local work has been done, mothers' meetings have been held, a school library has been established, and entertainments have been given that have done much to promote sociability. This is a growing community and the members of the club expect that their work will increase in value and amount next season. The officers are Mrs. C. D. Cort, president; Mrs. I. L. Elliott, vice-president; Mrs. C. D. McCulloch, secretary; and Mrs. O. L. Bromwell, treasurer.

The Fortnightly Club of Gatun, which is composed of about forty members, continues to give its small weekly dance, and the larger dance once a month. A good band supplies the music.

The Kangaroos organized in Gatun, May 30, with fifty members. The meeting was held in the Commission hotel and was attended by about two hundred members of the organization from various points along the line.

The Gorgona Woman's Club held a called meeting, June 11, when the revised by-laws were voted upon. Among the important changes is a provision for a board of managers composed of the officers and chairmen of the various committees. Ten dollars was raised to assist a white woman who wishes to return to her home in Jamaica, and further subscriptions are being taken. Mrs. Frank Morrison entertained the members at tea on the afternoon of June 16.

Interest has been raised among the Sunday school workers and other women of Gorgona in the women of the leper colony, of whom they are at present six. Materials have been purchased for the women to make up into garments for themselves. There has also been a generous response to the request for fireworks for the lepers for Fourth of July.

Wives of the members of the Y. M. C. A. at Gorgona have been asked to assist in the celebration of the first anniversary of the opening of the club house to be held on June 27, and a committee consisting of Mrs. D. S. Hayes, chairman, Mrs. Frank Morrison, Mrs. A. R. Sweet and Mrs. James Crockett is assisting in perfecting arrangements.

With the exception of the Ancon and the Las Cascadas clubs, the various clubs for women on the Isthmus have taken a recess for the summer. The Las Cascadas club is holding its weekly meeting, the principal diversion being card playing, although this is varied by short programs arranged by the entertainment committee. A study of the history of Panama, begun sometime ago, is being continued. The half-yearly election of officers will be held the first week in July.

A dancing class has been organized at Las Cascadas, composed of members of the Woman's club and of the Las Cascadas Social club. The class meets every Tuesday evening at the Commission hotel.

At the semi-annual business meeting of the Empire Christian League held in the Commission club house, at Empire, on Thursday evening, June 4, the following officers were elected: J. C. Forman, president; Mrs. Louise C. Gifford, first vice-president; C. H. Anderson, second vice-president; F. W. Conner, recording and corresponding secretary, and Mrs. J. F. McTyier, financial scretary.

Reports of the different committees demonstate that progress was being made in all the departments of the league work. After the completion of the new church building, which is being constructed by the Commission, a general crusade for new members for the league is planned by the present members. At present services are held each Sunday morning at 10.45, and in the evening at 7.45, in the court house.

St. Mary's Guild, Empire, has issued a general invitation for a reception to be given in honor of the president, Mrs. A. S. Zinn. The reception will be held at the Commission club house on the evening of June 18.

The recent school entertainment given by the pupils of the Empire public school for the benefit of the library, netted nearly one hundred dollars.

The women of Paraiso announce an old fashioned concert to be given in the church building, June 19, at 8 o'clock. A varied program has been arranged and refreshments will be served. No admission is to be charged, but a collection will be taken during the evening. The proceeds of the concert will go toward the purchase of a piano for the church.

Meetings of the Woman's club at Pedro Miguel will be resumed upon the return from the States of the president, Mrs. F. R. Roberts, who is expected this month, The secretary, Mrs. H. R. Schick, has recovered from her recent illness and returned home.

A trip through the Cut in the observation car was made by the White Teacher's Association on Sunday, June 14. A map showing the line of the Canal was presented to each person present and explanations were given along the route. On arrival at Pedro Miguel luncheon was served in the school house.

Among the several hundred photographs taken by Mr. C. L. Chester during his visit on the Isthmus are two which were taken from the platform on top of Balboa Hill, near Gorgona, on June 2. In one of the exposures the camera was facing the Atlantic ocean and the other the Pacific, and in each photograph the ocean is distinctly shown.

The Italian cruiser *Puglie*, Capt. D. L. D. Visconti, was anchored in Panama harbor from June 7 to June 11, On Wednesday morning, June 10, a party of ten of her officers were taken through the Cut on motor cars, and in the afternoon they were shown the lock and dam site at Gatun.

The topography along the line of the proposed highway between Panama and Gorgona has been completed by the Division of Municipal Engineering, and is now being plotted. This highway is merely projected, and has not been authorized.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

REPORT FOR MAY, 1908.

Total membership	1,336
Total number of bowling games	5,136
Average per day	208
Total number of pool and billiard games	13,078
Average per day	483
Total income from soda fountain	$1,316.13
Average per day	$42.41
Number of different men using gymnasium	101
Number of men enrolled in systematic gymnasium class work	46
Total attendance of men using gymnasium	639
Average per day	42
Number enrolled in chess and checker clubs	75
Number enrolled in dramatic and minstrel clubs	25
Number enrolled in camera clubs	6
Number enrolled in orchestras	14
Number enrolled in Bible clubs	12
Number enrolled in educational classes	36
Spanish	18
First aid	18
Number of members of library	404
Total number of books withdrawn	1,092
Number of Sunday meetings	8
Average attendance	70
Number of imported entertainments	14
Average attendance	212
Number of local entertainments	6
Average attendance	152
Number of functions outside of Association management	11
Average attendance	142
Number of afternoons for women	30
Average attendance	10
Number of evening functions to which women were invited	30
Average attendance of women	40
Number of committees	35
Different men on committees	149
Number of men called on in hospitals	70
Number of letters written at public tables	5,020
Average per day	166
Total attendance at building	39,465
Average attendance per day	1,280

Prof. William Frederick Bade, of the University of California, has been engaged for four illustrated lectures on exploration and mountain climbing in the Sierra Nevada mountains. They will be given on the following dates: Culebra, Wednesday evening, June 17; Cristobal, Thursday evening, June 18. The same lecture was given at Empire on Monday evening, June 15, and at Gorgona Tuesday evening, June 16.

CRISTOBAL.

Mr. Geo H. Wolbrecht. president of the St. Louis chess club, and one of the players in the recent international chess match, gave an exhibition of chess playing on Wednesday night. He played seventeen games, losing but two—one to Judge Lorin C. Collins, and the other to Mr. E. K. Turner. Another exhibition will be given on next Wednesday night, when Mr. Wolbrecht will play all comers.

Mr. Geo. A. Barte has been elected captain of the first bowling team for the ensuing season.

A team of six or eight Y. M. C. A. athletes are planning to enter the Ancon athletic meet on July 4.

GORGONA.

The candidates for the athletic meet at Ancon park on July 4 are training every evening at the ball park. Several new men are out, and prospects are bright for a good showing in the various events. Mr. Nancarrow, formerly a member of the London "Harriers," has charge of the track men, and G. C. Ferris is with the field events.

A party of Y. M. C. A. Juniors visited the old French village of Chagresita on June 6, and spent the day in looking over the storehouses and machinery in the village, and the old French dredges in the jungle.

The Gorgona Y. M. C. A. will hold its first anniversary celebration on Saturday evening, June 27, instead of on June 30, the actual end of the first year of work.

EMPIRE.

The following speakers will address the Sunday Club on the following dates: June 21, J. N. Weaver; June 28, F. C. Freeman; July 5, H. D. Reed; July 12, M. J. Stickel; July 19, H L. Stuntz; July 26, R. R. Wolf.

CANAL WORK FOR MAY.

Monthly Report of the Chairman to the Secretary of War.

June 13, 1908.

The Honorable,
The Secretary of War,
Washington, D. C.

Sir: I have the honor to submit the following report of operations on the Isthmus for the month of May, 1908.

Department of Construction and Engineering.

CULEBRA DIVISION.

During the month of May the total amount of material excavated in this division was 960,840 cubic yards, a decrease of 281,734 cubic yards as compared with the amount excavated in April. This large decrease in excavation was due principally to the heavy rainfall. Of the amount excavated, 930,179 cubic yards were removed from the Canal prism, and 30,661 cubic yards from the Obispo Diversion.

For comparison with the work performed during the corresponding month of the previous year, the following table has been prepared:

Period.	Total amount of material excavated by steam shovels.	Classification of material		Av. No. of steam shovels working during month.	Wk'g days in m'th	Av. amount excavated per steam shovel per month	Av. amount excavated per steam shovel per day.
		Rock.	Earth.				
1907	*cu. yds.*	%	%			*cu. yds.*	*cu. yds.*
May	690,365	57	43	31.69	26	21,785	838
1908							
May	960,840	66	34	41.56	25	23,119	925

Rainfall during month: 1907, 6.84 inches; 1908, 12.67 inches.

It will be seen from the above table that the total excavation by steam shovels in the Culebra Division during the month of May, 1908, was 39 per cent. greater than the amount for the corresponding month in 1907, and that the average output per shovel per day was about 10 per cent. greater. The rainfall in May, 1908, was about 85 per cent. greater than in May, 1907.

The drilling during the month amounted to 202,942 linear feet, and 269.2 tons of explosives were used.

The total amount of new track laid was 7.8 miles, of old track removed, 7.9 miles.

There was a decrease of 595 in the labor force as compared with the month of April.

CHAGRES DIVISION.

The total amount of material excavated in this division during the month was 244,143 cubic yards, of which 235,902 cubic yards were taken from the Canal prism. The average output per shovel per day was 836 cubic yards.

The rainfall during the month at San Pablo was 11.8 inches

There was an increase of 31 in the labor force on this division as compared with the preceding month.

COLON DIVISION.

Three dredges worked on this division during the month, all of which operated in the prism of the Canal in Limon bay. The total output of the dredges amounted to 554,386 cubic yards Two steam shovels worked at the Mindi hills during the month, excavating 54,333 cubic yards.

GATUN LOCKS.

An average of 5.76 steam shovels were at work at the lock site during the month, excavating a total of 166,410 cubic yards. Of this amount, 27,595 cubic yards were taken from the site for the cableways.

PORTO BELLO.

The work at Porto Bello included the laying of concrete in connection with the waterworks dam, clearing from the site for the reservoir, excavation at the quarry and power plant site and work on the storage magazine for explosives.

A camp was established at Nombre de Dios for the purpose of determining the quality of the sand deposit and making a survey of the harbor.

GATUN DAM AND SPILLWAY.

An average of 5.1 steam shovels worked on the spillway during the month, excavating a total of 100,337 cubic yards. Work on the dam and spillway included also the driving of piles, drilling, digging of test pits, and work in connection with seepage tests.

LA BOCA DIVISION.

Three dredges worked on this division during the month, all operating in the Canal prism. The total excavation was 530,466 cubic yards.

At Cardenas Hill, 17,200 cubic yards of material were removed and used in building the dyke line to serve as a retaining wall for dredged material. Some clearing, drilling and trestle work was also done at this point.

MIRAFLORES LOCKS AND DAMS.

Examination of the sub-stata at the Miraflores lock and dam sites was practically completed during the month. The excavation at Miraflores amounted to 74,049 cubic yards.

Various minor items of work were accomplished, including excavation on the spillway and the diversions on the east side of Miraflores locks, intended to divert the waters of the Rio Grande.

RELOCATION OF PANAMA RAILROAD.

Spur No. 16, leading to the south portal of Miraflores tunnel, was 80 per cent. completed at the end of the month. No work was done on any other temporary connection track.

During the month 22,950 cubic yards of material were excavated, and 142,922 cubic yards were placed in embankments.

One thousand nine hundred and thirty-seven linear feet of trestle were driven on the relocated line between Gamboa and a point opposite Juan Grande.

Work was continued on the construction of Miraflores tunnel, and various bridges and culverts. During the month, 3,738 feet of permanent track were laid, making a total at the end of the month of 36,579 feet.

No ballast was placed during the month of May.

The force of laborers engaged on the work of relocation averaged 1,125 men.

DIVISION OF MUNICIPAL ENGINEERING.

The usual work of this division in connection with the maintenance of waterworks, sewers and roads, was continued during the month. Work was commenced on various small jobs of new construction, and a number of items were completed.

MECHANICAL DIVISION.

The usual work was performed by this division in connection with the installation of machinery in the shops, the erection and repair of equipment, and electric wiring and installations at various points. Miscellaneous new and repair work was done for other divisions and departments.

DIVISION OF BUILDING CONSTRUCTION.

During the month this division completed 29 items of new construction, including 1 commissary, 2 storehouses, 1 school house, 2 office buildings, and a number of type houses. Repairs were made to 138 buildings, 14 buildings received alterations, and 9 old buildings were demolished.

DIVISION OF METEOROLOGY AND RIVER HYDRAULICS.

The usual observations and measurements were continued during the month.

The mean maximum temperature for the month was 87 degrees at Ancon, 85 degrees at Bas Obispo and 83 degrees at Cristobal.

The total evaporation was 3.219 inches at Ancon, 3.175 inches at Bas Obispo and 2.57 inches at Cristobal.

The May rainfall was excessive all along the Canal prism.

Department of Labor, Quarters and Subsistence.

During the month there were 431 additions to the gold force, and 389 separations. The steerage immigration exceeded steerage emigration by 1,056, in addition to which 507 laborers were imported from Europe and the West Indies The total labor force actually at work on the last day of May was 21,036.

The departure of European laborers continued during the month, 250 having taken passage for Brazil on May 26. Considering the fact that many European laborers have been on the work a sufficient time to accumulate a small competence, and that others are impelled by the spirit of adventure to seek new fields of work, the departure of a large number from the Isthmus without special grounds of complaint as to their work, pay, or treatment, can not be considered as abnormal, and this condition may be expected to continue from year to year, especially during the early part of each wet season.

During the month of May 96 assignments to family quarters were made. At the end of the month there were 358 applications on file as compared with 403 at the end of April.

The total estimated loss in the subsistence operations was $4,708.65 as compared with $5,007.76 for the month of April.

Department of Civil Administration.

COURTS.

Two civil cases were disposed of in the Supreme Court during the month. In the Circuit Courts, 4 civil and 34 criminal cases were heard and disposed of; and in the District Courts, 22 civil and 458 criminal cases were tried and settled.

REVENUES DEPARTMENT.

The usual business of this department was transacted, embracing all matters in connection with the postal service, lands, collection of customs, internal revenues, miscellaneous collections, and the administration of estates.

Sixteen vessels entered, and 13 vessels cleared from the port of Ancon during May. At the port of Cristobal, 17 vessels entered and 21 cleared.

POLICE DEPARTMENT.

Seventeen men were enlisted in the police force during the month of May, and 12 members of the force were discharged, making a total force at the end of the month of 220 officers and men. The number of arrests was 504, as compared with 591 in April. Ten convicts were given penitentiary sentences during the month and 6 prisoners were released upon expiration of sentence, leaving 99 convicts in confinement on May 31.

Six persons of undesirable character were deported from the Canal Zone during the month.

The coroner reported 10 deaths requiring his action, 3 resulting from railroad accidents and three from premature explosions of dynamite.

DIVISION OF PUBLIC WORKS.

The average daily consumption of water in Panama and Colon during the month was 919,838 gallons and 430,958 gallons, respectively, as compared with 824,533 gallons in Panama, and 457,591 gallons in Colon, during the month of April. A number of new water connections were made in both cities. The collections on account of water rents in the cities of Panama and Colon for the first quarter of 1908, were practically completed during the month.

The revenues derived from the public markets amounted to $398.95 during the month. The Cristobal market was closed with the view to moving it to a location less objectionable to the American residents of Cristobal.

FIRE DEPARTMENT.

One fire occurred in the Canal Zone during the month. An oil tank at Mount Hope, belonging to the Union Oil Company, was struck by lightning on May 13, and was totally destroyed with its contents. The estimated loss was $25,000. The fire company at Cristobal responded to 3 alarms of fire at Colon during the month, and the Ancon fire company responded to one alarm in the city of Panama.

DIVISION OF SCHOOLS.

The enrolment in the schools for white children was 498, as compared with 533 during April. In the colored schools the enrolment was 1,342, as compared with 1,329 during April.

The last monthly conventions of the teachers organizations for the present school year were held in May.

Department of Sanitation.

The health report for the month of May shows the annual death rate per thousand for white employes was 14.59, as compared with 18.34 for the corresponding month of 1907. The rate for black employes in May, 1908, was 8.72 per thousand, and in May, 1907, 34.48 per thousand. The rate for all employes, white and black combined, was 10.44 per thousand in May, 1908, as compared with 30.15 for the corresponding month in 1907. In the city of Panama the annual death rate per thousand, based on the figures for May, 1908, was 30.10, as against 26.79 for the month of May, 1907. This increase in the death rate in Panama was offset by the improvements in the annual death rate in the city of Colon, which was 29.79 per thousand for May, 1908, as compared with 34.21 per thousand in May, 1907.

There were 39 deaths among employes, against 98 deaths during May, 1907. Four of these deaths resulted from malaria and 9 from external violence, of which latter 8 were among the white employes.

The reductions, as compared with last year's rates for employes, were due practically to a decrease in the number of deaths from typhoid fever and pneumonia. All deaths from these two diseases during the month were among the back employes.

Respectfully,

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Prison Labor on the Roads.

After a trial of eleven weeks the employment of convicts and local prisoners at highway building in the Canal Zone is said by the Division of Municipal Engineering to have passed the experimental stage. Three distinct ends were in view when the program submitted by the special committee on the employment of prisoners was approved February 12, 1908. First of these was the improvement of the condition of the prisoners; second, the opening up to development of the fertile valleys of the Canal Zone; and third, reimbursing the Government for the expeuse of maintaining its penal system. Each of these ends is being accomplished.

The prisoners are divided into two classes—long term or felons, and short term or misdemeanants; the short term men having been sentenced for three months or less, and the long term for more than three months. Long term sentences are for hard labor and confinement at the Culebra penitentiary, and there are on an average one hundred prisoners serving such sentences. Fifty of these are engaged on road building near or in Culebra and are confined in the penitentiary at night. Fifty are being used on the road being built between Mount Hope and Gatun, and their base is a camp established on the line of work.

The camp is portable. It consists of one large building with bunks for fifty men, a cook and dining shed, all made from native material and very cheap, and officers' tents; a high barb-wire fence surrounds these buildings and tents. Here the men take their three meals a day and sleep at night. The meals are substantial and well prepared, the bunks in which the prisoners sleep are dry and the building well ventilated. This is the only prison camp so far established.

The municipal prisoners, or short term men, are engaged in local work and spend the night in the various jails. Already the results are noticeably good on this class. Their terms although short are long enough to give them the advantage of a month or two of abstinence from liquor, and the benefit of nourishing food.

This is the first systematic effort that has been made to develop the Isthmus of Panama by building good roads. The fertile valleys of the Canal Zone are now almost valueless because inaccessible, and highways will open them to cultivation. It is the idea of the originators of the plan that Panama can be made as garden-like as Hawaii and by the same means—prison labor. The scheme already approved includes a road along the line between the Canal Zone and the city of Panama, from the La Boca road to the Administration Building at Santa Rosa, the improvement of the streets in the native town at Empire, the breaking of rock from the Canal work at Gorgona and a wagon road from Gorgona to Bas Obispo, and a road from Mount Hope to Gatun. Contemplated is a road from Panama to Pedro Miguel along the east side of the Canal and from Pedro Miguel to Gorgona along the west side of the Canal. Eventually all these highways will connect with one another, but the first object is opening up the country in various places rather than building one main highway or system of roads connecting any two or more villages.

In this scheme the first serious piece of construction was begun eleven weeks ago, the road from Mount Hope to Gatun. It is to be twenty feet wide and seven miles long, and will open up the hill country between these two places. In seven weeks fifty convicts graded the roadway one and one-half miles. The Division of Municipal Engineering believes that fifty free laborers could not have done better. On this work the local prisoners from Cristobal precede the long-term workers and clear away the vegetation so that the grading may proceed without interruption. At present local prisoners are building the La Boca-Santa Rosa road and are working on the hill road between Gorgona and Empire. In general the highways being constructed are of the Sabanas road type, a macadam bed drained by side ditches.

For book-keeping purposes the Division of Municipal Engineering credits the Department of Civil Administration with 80 cents gold a day for each prisoner employed. The division that employs the men states that such good labor could not be purchased on the Isthmus for that price, and the Department of Civil Administration finds that the revenue from its prisoners is greater than the expense of keeping them. In this expense is computed the cost of housing the prisoners, food, medical attendance, and guards. Each force of prisoners is directed by an engineer, and kept at work by guards. The fifty men at work on the Mount Hope-Gatun road require one engineer, and one white and three colored guards during the day, and two guards at night. The force does its own cooking and cares for the sanitation of the camp.

Club Notices.

The Empire Masonic Club will hold its regular monthly meeting on Friday evening, June 19, at the Kangaroo Hall, and on account of the Taboga trip which is arranged for the following Sunday, June 21, a full attendance is desired.

A regular meeting of the Pacific Masonic Club will be held at Hotel Tivoli, on Saturday, June 20, at 8.30 p. m.

The celebration of St. John's Day which was to be held by the Masons on June 21, at Taboga Island has been indefinitely postponed owing to their being unable to arrange for transportation.

At a meeting of a joint committee of the eight tribes, I. O. R. M., at Las Cascadas, June 14, it was decided that the order would not arrange for a special observance of the Fourth of July. Each tribe may assist as it sees fit in the observance of the day.

PERFORMANCE OF STEAM SHOVELS.

Monthly Records in the Seven Divisions.

The subjoined tables show the monthly records of steam shovel work in the seven Divisions of Canal Excavation since American occupation.

CULEBRA.

Period.	Average number of steam shovels at work.	Number of working days in month.	Output per shovel CUBIC YARDS		Rainfall—Inches.		Maximum temperature in sun at Empire (degrees Fahrenheit).
			Per day.	Per month.	Empire.	Culebra.	
1906—							
January	12.83	26	363	9,430	1.28	1.19	.....
February	12.48	23	587	13,494	0.57	0.64	.....
March	12.37	27	716	19,335	0.45	1.34	.....
April	12.33	24	720	17,289	11.42	8.43	.....
May	12.41	27	581	15,684	7.54	7.25	.....
June	14.81	26	539	14,026	6.92	8.94	123
July	16.64	25	378	9,441	14.61	20.26	127
August	16.93	27	536	14,461	11.84	12.97	132
September	21.33	24	568	13,664	7.41	6.22	130
October	22.67	27	532	14,373	3.97	8.46	128
November	20.46	24	459	10,833	21.05	19.19	120
December	22.68	25	491	12,267	8.15	9.09	108
1907—							
January	31.04	26	702	18,248	0.08	0.00	104
February	39.87	23	674	15,966	0.13	0.49	108
March	43.88	25	741	18,530	0.16	0.08	105
April	44.12	26	765	19,884	0.09	0.04	110
May	31.70	26	833	21,674	6.22	7.45	118
June	38.28	25	651	16,266	13.53	14.74	118
July	43.38	26	680	17,670	9.85	9.42	118
August	39.70	27	729	19,680	11.28	11.81	120
September	38.50	24	811	19,468	10.86	11.38	123
October	37.63	27	813	21,963	15.44	15.27	123
November	41.88	24	784	18,818	10.40	6.91	123
December	42.72	25	965	24,113	1.47	2.30	124
1908—							
January	43.42	26	1,084	28,177	0.75	0 91	125
February	43.67	24	1,186	28,475	0.00	0.01	124
March	42.19	26	1,171	30,451	0.41	0.13	125
April	41.28	25	1,202	30.031	1.36	1,67	127
May	41.56	25	918	22,948	12.91	12.63	129

GATUN LOCKS.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day.	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
Aug	3.70	27	784	21,176	16.37
Sept	4.12	24	884	21,219	8.03
Oct	5.00	27	1,013	27,355	19.27
Nov	5.00	24	1,014	24,327	14.27
Dec	5.00	25	1,286	32,159	5 53
1908—					
Jan	5.72	26	1,302	33,840	3.18
Feb	6.01	24	1,222	29,333	1.29
Mar	7.00	26	1,206	31.366	2 81
Apr	7.00	25	1,288	32,210	1.47
May	5.76	25	1,156	28,889	17.20

GATUN SPILLWAY.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day.	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
July	1.33	26	423	10,998	11.12
Aug.	2 00	27	498	13,433	16.37
Sept	2 00	24	757	18,158	8.03
Oct	2.00	27	745	20,118	19.27
Nov	2.00	24	854	20,494	14,27
Dec	2.00	25	1,395	34,878	5.53
1908—					
Jan	3.00	26	1,264	32,863	3.18
Feb	3.75	24	1,183	28,402	1 29
Mar	4.54	26	1,311	34,149	2.81
Apr	5.00	25	1,184	29,598	1.47
May	4.42	25	908	22,701	17 30

MIRAFLORES LOCKS.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day.	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1908—					
Mar	3.5	26	786	19,418	0 00
Apr	4.5	25	820	20,502	0.76
May	5.75	25	487	12,174	8.65

CHAGRES.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
Aug	0.15	27	716	19,333	12 20
Sept	0.92	24	976	23,420	14.71
Oct	2.22	27	428	11,544	13.62
Nov	3.00	24	612	14,681	9 85
Dec	6.12	25	630	15,756	2 26
1908—					
Jan	8.11	26	797	20.720	0.20
Feb	10.33	24	798	19,144	0 11
Mar	11.47	26	1,082	28,094	0 41
Apr.	11.76	25	1,121	28,018	1 81
May	11.68	25	08	20,197	13.18

COLON.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
July	1	13	56	731	11.12
Aug	2	27	283	7,629	16.37
Sept	2	24	601	14,419	8,03
Oct	2	27	761	20,539	19.27
Nov	2	24	833	20,002	14.27
Dec	2	25	939	23,473	5 53
1908—					
Jan	2	26	1,208	31,418	3.18
Feb	2	24	1,368	32,816	1 29
Mar	2	26	1,574	40,925	2.81
Apr	2	25	1,349	33,718	1.47
May	2	25	1,087	27,167	17 30

LA BOCA DIVISION.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1908—					
Mar	1	26	476	12,360	0.00
Apr	1	25	452	11,300	0 76
May	1	25	688	17,200	8 65

The grand total of all Divisions for the month of May, 1908, is:

Average number of shovels at work, 72.17.

Average output per shovel per day, 885 cubic yards.

Average output per shovel per month, 27,683 cubic yards.

The working day for steam shovels is eight hours.

Highest Output for May.

High records by steam shovels for the 25 working days in May were made as follows:

CULEBRA DIVISION.

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
BAS OBISPO DISTRICT.			
201	13,734	20,602	34,336
260	26,384	4,656	31,040
EMPIRE DISTRICT.			
207	3,542	31,874	35,416
262	9,014	21,034	30,048
CULEBRA DISTRICT.			
105	26,425	....	26,425
122	....	24,237	24,237
218	....	30,992	30,992
222	....	34,893	34,893
PEDRO MIGUEL DISTRICT.			
123	12,380	....	12,380
209	30,133	2,601	32,734
202	17,967	3,944	21,911
OBISPO DIVERSION.			
127	8,938	5,410	14,348

CHAGRES DIVISION.

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
MATACHIN.			
108	18,104	6,000	24,104
SANTA CRUZ.			
156	18,101	....	18,101
SAN PABLO.			
115	17,488	7,733	25,221
254	1,378	17,921	19,299
CAIMITO.			
101	10,010	16,927	26.937
59	13,890	6,000	19,890

COLON DREDGING DIVISION.

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
MINDI			
103	8,221	22,973	31,194
133	....	23,139	23,139

Steam shovel No. 157, operated by the La Boca Dredging Division at Cardenas Hill, removed a total of 17,200 cubic yards of earth during the month.

Highest Daily Record for May.

Shovel No.	Date	Location	Amount of material remov'd (cubic yards)	Kind of material
CULEBRA DIVISION.				
210	May 29	Empire	2,380	rock and earth
206	May 1	Empire	2,280	soft rock
201	May 4	Bas Obispo	2,880	earth
227	May 13	Bas Obispo	2,268	rock and earth
209	May 26	Pedro Miguel	2,440	earth
202	May 27	Pedro Miguel	1,720	earth
218	May 9	Culebra	2,200	rock and earth
263	May 28	Culebra	2,868	rock and earth
122	May 8	Culebra	1,764	rock
CHAGRES DIVISION.				
115	May 16	San Pablo	1,625	earth and rock
256	May 26	Matachin	1,280	rock
54	May 2	Caimito	1,460	earth and rock
156	May 8	Santa Cruz	1,272	earth
COLON DREDGING DIVISION.				
103	May 4	Mindi	1,741	rock and clay
133	May 25	Mindi	2,668	rock and clay

Note.—Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dippers of a capacity of 5 cubic yards. Shovels in the fifty class are 45-ton shovels with dippers of a capacity of 1¾ cubic yards. The shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

COMMISSARY DEPARTMENT.

Ice Cream at the Commissaries.

The Commissary Department announces that ice cream made in its new plant, under the charge of an expert from the States, will be placed on sale June 16. For the present it will be sold only in the various commissaries, and will not be shipped direct to the purchaser from Cristobal, as shipping containers of the proper size have not yet been received. On their arrival, orders for the cream in gallon lots will be accepted at Cristobal, and shipments made direct from there. The cream will be sold at $1 per gallon, and the following flavors will be manufactured during the week ending June 21: Wednesday, June 17, strawberry; Thursday, June 18, lemon; Friday, June 19, pineapple; Saturday, June 20, coffee; Sunday, June 21, peach

NOTICE.

All Panama Railroad Commissaries will be closed on Wednesday, July 1, for the purpose of taking inventory.

Hiram J. Slifer,
General Manager.

COMMISSARY PRICES

For week beginning June 17:

NOTICE OF PRICE CHANGES

		Old Price cts.	*New Price* cts.
Undershirts and drawers, Olympia, stock No. 39,258	ea	38	40
Brushes, flesh, stock No. 38,903	ea	1 05	1 05
Panetelas, Jamaica	ea	3	4

Pigs' tongues (salted)	per lb...	15
Pigs' tongues, pickled and cooked.	do	24
Chickens, dressed (milk-fed)	each...	1.30
Chickens, large	do	1.50
Fowls	do	1.20
Ducks, fatted (fancy)	do	1.25
Squabs	do	45
Milk, Briarcliff	quart..	25
Strawberries	quart..	20
Pineapples	each...	15
Oranges	per doz...	12
Grape Fruit	each...	4
Limes	hun...	70
Lemons	per doz...	15
Beets	per lb...	6
Cantaloupes	each...	10
Peaches	per lb...	20
Dandelions	per lb...	14
Spinach	do	7
Rhubarb	per lb...	6
White potatoes.	per lb...	3
Cabbage	do	2½
String beans	do	6
Corn	dozen...	35
Onions	per lb..	4½
Tomatoes	per lb...	10
Lettuce	do	15
Watermelons	each...	40
Cucumbers	per lb...	8
Sweet potatoes	per lb...	2½
Turnips, Rutabagas	per lb...	4½
Carrots	per lb...	4½

NEW ARTICLES		*Price.* cts.
Pipes, briar, No. 240, stock No. 42,225	each...	45
Pans, sauce, Berlin, No. 010, stock No. 42,228	do	50
Dishes, soap, agate, No. 60, stock No. 42,229	do	10
Plates, dinner, white china, 9 inches, light, stock No. 42,235	do	15
Cups and saucers, white china, light, stock No 42,236	set...	18
Chairs, revolving, office, golden oak, stock No. 42,217	each...	6 80
Pecheries, Basques, ½s	tin.....	24
Mackerel, Amieux, in wine	do	27
Macedoines, Monbadon	do	16
Pimientos, Morrones, ¼s	do	9
Jelly, petroleum, yellow, 5-oz., stock No. 42,252	bot...	5
Holders, sleeve, silk elastic, stock No. 42,249	pair...	10
Buttons, collar, stock No. 42,253.	each...	5
Papeteries, No F 615, stock No. 42,266	box...	25
Papeteries, No, 6650, stock No 42,267	do	1 30
Papeteries, No. 6877, stock No. 42,268	do	70
Papeteries, No. 6762, stock No. 42,269	do	85
Pajamas, suits, gingham, No. 5218, stock No 42,262	suit ..	90
Ties, embroidered, cotton, four-in-hand, No- 14c, stock No. 42,271.	each...	30
Allovers, Hamburg, stock No. 42 261	yard...	45
Laces, corset, glazed, 5-yd., stock No. 42,263	each ..	3
Pitchers, cream, china, 2 qt., stock No. 42,257	do	20

Isthmian Baseball League.

The baseball season closed on June 14, and Ancon won the pennant by a large margin. The games played June 14 resulted as follows:

At Ancon Park: Ancon, 11; M. P. & M., 6 (called at end of fifth inning—rain).

At Empire Park: No game; rain.

At Gorgona Park: Marines, 9; Culebra 0 (forfeited, Culebra failing to appear).

STANDING OF THE LEAGUE.

June 14, 1908:

	Played	*Won*	*Lost*	*Per cent*
Ancon	24	22	2	917
Empire	23	17	6	739
M. P. & M	24	17	7	708
Kangaroos	23	9	14	391
Culebra	23	9	14	391
Gorgona	23	5	18	217
Marines	22	3	19	136

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, June 13, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Alexander, W. H.
Boothe, Albert
Brown, W B.
Butler, N. J
Cano, G. G
Castro, Belisario
Childs, Daisy
Claybourne, Mrs. Vernon M.
Conners, James
Cumberbatch, Therese
Curtis, W. S.
Farley, Bernard F.
Fitzpatrick, T E.
Flaherty, Michael
Gillespie, James C.
Goodwin, Chede
Hagan, Mrs Lizzie
Hall, H. F.
Hexamer, E. W.
Hirsch, Louis E.
Holmelein, Victor
Hudson, John
Leckler, A. J.
Lipscomb, Brooks
Lorah, Walter
McCarthy, Dr. Francis P.
McDonald, Chas. J
Molloy, John
Mooney, Thomas (2)
Nathan, Joseph
Prescoe, Timothy
Price, T. J.
Proude, Truman
Reisinger, Carl L.
Robertson, Elmer H.
Ross, Mrs. Annie (5)
St. Vlakoo, John
Saunders, Perry
Stevens, E. B.
Tetters, William
Thomas, Conrad
Twiliger, Ed
Wade, William
Warren, A. L.
Waterworth, Thomas
Whitehead, James W.
Wilson, Chas A.
Zimmerman, B. F.

Rainfall from June 1 to 13, 1908, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations	Maximum in one day.	Total.
Atlantic Slope.		
Cristobal	.72	2.40
Brazos Brook	2.03	4.65
Gatun	1.65	2 99
Bohio	2.64	6.03
Tabernilla	.74	2.90
San Pablo	1.22	3.11
Central Section.		
Bas Obispo	1 00	3.03
Gamboa	1.60	2.86
Empire	2.04	4 18
Camacho Dam	2.38	7.12
Culebra	1.76	4 29
Rio Grande	1.83	3.67
Pacific Slope.		
Pedro Miguel	1.24	3.69
La Boca	1.53	3 86
Ancon	1.44	3.41
Upper Chagres.		
Alhajuela	2 00	4 23

Concert.

By the I. C. C. Band at Las Cascadas, C. Z., Sunday, June 21, at 2.30 p. m.

PROGRAM.

1	March	*New Colonial*	Hall
2	Selection	*A Waltz Dream*	Strauss
3	Waltz	*Venus Reigns.*	Gungl
4	Intermezzo	*Apple Blossoms*	Roberts
5	(a Mazurka	*Feather Bells*	Losey
	(b March	*Happy Days*	Levi
6	Morceau characteristic	*Dawn of Love*	Bendix
7	Caprice	*The Whistler and His Dog*	Pryor
8	Overture	*Poet and Peasant*	Suppe
9	Indian Intermezzo	*Heap Big Injun*	Sawyer
10	March	*Our Director*	Bigelow

Chas. E. Jennings,
Musical Director.

The next concert will be given at Cristobal, Sunday, June 28.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company; of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON

Pr. Eitel Friedrich	H.-A.	Friday	June	12
Allianca	P.R.R.	Saturday	June	13
Magdalena	R.-M.	Saturday	June	13
Finance	P.R.R.	Thursday	June	18
Pr. Aug. Wilhelm	H.-A.	Saturday	June	20
Esperanza	P R R.	Wednesday	June	24
Prinz Sigismund	H.-A.	Friday	June	26
Orinoco	R.-M.	Saturday	June	27
Advance	P.R.R.	Monday	June	29
Colon	P R R.	Friday	July	3
Prinz Joachim	H.-A.	Saturday	July	4
Allianca	P.R.R.	Wednesday	July	8
Pr. Eitel Friedrich	H.-A.	Friday	July	10
Atrato	R.-M.	Saturday	July	11
Finance	P.R.R.	Monday	July	13
Esperanza	P.R.R.	Saturday	July	18
Pr. Aug. Wilhelm	H.-A.	Saturday	July	18
Advance	P.R.R	Thursday	July	23
Prinz Sigismund	H.-A.	Friday	July	24
Clyde	R.-M.	Saturday	July	25
Colon	P.R R.	Tuesday	July	28
Prinz Joachim	H.-A.	Saturday	Aug.	1
Allianca	P.R.R.	Monday	Aug.	3
Finance	P.R.R	Friday	Aug.	7
Pr. Eitel Friedrich	H.-A.	Friday	Aug.	7
Trent	R.-M.	Saturday	Aug.	8
Panama	P.R.R	Wednesday	Aug.	12
Pr. Aug. Wilhelm	H -A.	Saturday	Aug.	15
Advance	P.R.R.	Monday	Aug.	17
Prinz Sigismund	H.-A.	Friday	Aug.	21
Colon	P.R.R.	Saturday	Aug.	22
Tagus	R.-M.	Saturday	Aug.	22
Allianca	P.R.R.	Thursday	Aug.	27
Prinz Joachim	H -A.	Saturday	Aug.	29

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon.

FROM COLON TO NEW YORK

Panama	P.R.R	Sunday	June	21
Prinz Joachim	H -A.	Tuesday	June	23
Allianca	P.R.R.	Friday	June	26
Atrato	R.-M.	Tuesday	June	30
Finance	P.R.R.	Wednesday	July	1
Esperanza	P.R.R.	Monday	July	6
Pr. Aug. Wilhelm	H -A.	Tuesday	July	7
Advance	P.R R.	Saturday	July	11
Clyde	R -M.	Tuesday	July	14
Colon	P R R	Thursday	July	16
Allianca	P.R.R.	Tuesday	July	21
Prinz Joachim	H.-A.	Tuesday	July	21
Finance	P.R.R	Sunday	July	26
Trent	R -M.	Tuesday	July	28
Esperanza	P.R.R	Friday	July	31
Pr. Aug. Wilhelm	H.-A.	Tuesday	Aug.	4
Advance	P.R.R.	Wednesday	Aug.	5
Colon	P R R	Monday	Aug.	10
Tagus	R.-M.	Tuesday	Aug.	11
Allianca	P.R R	Saturday	Aug.	15
Prinz Joachim	H.-A.	Tuesday	Aug.	18
Finance	P R R.	Thursday	Aug.	20
Panama	P R.R.	Tuesday	Aug.	25
Magdalena	R.-M.	Tuesday	Aug.	25
Advance	P.R.R	Sunday	Aug.	30
Pr. Aug. Wilhelm	H -A.	Tuesday	Sept.	1

FROM NEW ORLEANS TO COLON

Ellis	U.F.C.	Saturday	June	13
Preston	U F.C.	Saturday	June	20
Harry T. Inge	U F.C.	Saturday	June	27

FROM COLON TO NEW ORLEANS

Ellis	U.F.C.	Tuesday	June	23
Preston	U.F.C.	Tuesday	June	30
Harry T. Inge	U.F C.	Tuesday	July	7

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Magdalena	R -M.	Tuesday	June	23
Orinoco	R.-M.	Tuesday	July	7
Atrato	R -M.	Tuesday	July	21
Clyde	R.-M.	Tuesday	Aug.	4
Trent	R -M.	Tuesday	Aug.	18
Tagus	R.-M.	Tuesday	Sept	1

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston Jamaica, for New York

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's Line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company despatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Barbadian*, about June 27.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, JUNE 24, 1908. No. 43

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Changes in Organization.

After July 1 the Department of Lock and Dam Construction will be abolished and the Atlantic Division will be created, as provided in Circular No. 183, published on another page of this issue of THE CANAL RECORD.

By an order issued on June 6, by the head of the Department of Municipal Engineering, Motive Power and Machinery, and Building Construction, the number of districts into which the Divisions of Municipal Engineering and Building Construction are divided, is reduced to take effect July 1, on account of the decrease in the amount of work to be done by the two divisions.

The districts in the Division of Building Construction have been reduced from five to three, and the heads of the subdivisions of painting, masonry, and plumbing will report to the superintendents of the districts in which they are located instead of to the Master Builder, as at present. L. M. Lipsett will be superintendent of the Ancon district, which will include all the territory from Taboga to Cucaracha. John F. Wickham will be superintendent of the Culebra district, which will include the territory from Rio Grande Superior to Tabernilla. William H. Storm will act as superintendent of the Cristobal district, which includes the territory from Frijoles to Porto Bello, until October 1, when John P. Kyte will succeed him as superintendent. H. E. Daly, at present superintendent of the Gorgona district, has been advised by his physician to leave the Isthmus on account of continued ill health and the Commission will lose his services. He has been granted 84 days leave of absence and has sent in his resignation to take effect at the expiration of his leave.

Although the plumbing work of the several districts will be under the direction of the district superintendents, C. L. Stockleberg will remain as superintendent of plumbing and will report as at present to the Master Builder. W. C. Dotson, at present superintendent of masonry, will occupy the position of general foreman mason in the Ancon district. S. D. Morgan, at present general superintendent of painting, will be general foreman painter in the Culebra district after the expiration of 84 days leave of absence which begins June 25.

The organization of the Division of Municipal Engineering will be altered to consist of the following residencies, each in charge of an assistant engineer. Residency No. 1 will extend from and including the Island of Taboga to and including the village of Pedro Miguel, under W. M. Acheson, headquarters, Panama. Residency No. 2 will extend from Paraiso to and including Tabernilla, under C. T. Waring, headquarters, Culebra. Residency No. 3 will extend from Tabernilla to and including Porto Bello, under L. G. Thom, headquarters, Gatun. Charles W. Beattie, at present assistant engineer in charge at Cristobal, will be assigned to special work under the Division Engineer.

Steamer for Work at Gatun Locks.

A stern-wheel steamer for use in towing stone, sand, and cement from Cristobal through the old French canal to the Gatun locks, has arrived on the Isthmus knocked down and is being assembled at Cristobal dry docks. It will be ready for use by the time it is needed, about January 1, 1909. The length is 108 feet 4 inches over all, 90 feet inside the stems; beam, molded, 19 feet 6 inches, over nosings, 20 feet 10 inches; depth, 5 feet 3 inches; draft, 2 feet 8 inches; displacement, 100 tons. It will be driven by two tandem compound engines, with cylinders 7 by 14 inches, stroke of 4 feet; pressure 180 pounds.

Work in Culebra Division.

Plans are being made by the Culebra Division for a pumping station to be installed near the Chagres river at the north end of the Bas Obispo district. The excavation at Bas Obispo is down to 12 feet above grade in one place, and plans for the pumping station are being made at this time in order that the pumps may be in readiness to handle the water that will collect in the prism when the excavation is near the proposed bottom. A barrier of earth will be left between the cut and the river, a sump will be dug in the bottom, and centrifugal pumps will be installed to lift the water over the barrier into the river.

An inclined track is being laid beginning at the low part of the Canal near the Panama railroad bridge at Paraiso and extending to connect with the Panama railroad at Pedro Miguel. It is intended to send the loaded dirt trains over this route to the dumps at Cardenas and La Boca, and to bring back the "empties" over the high route from Pedro Miguel to the Cut. Practically all the spoil from the Cut from Gold Hill south will be handled over these two tracks.

Electric lights have been installed at the Paraiso slide in order that work may be continued there at night. Since the first of the month there has been very little rain and the slide has not extended any in area. It is held in check chiefly with one shovel, No. 123.

Progress at San Pablo.

North Hill in the San Pablo district of the Chagres Division is disappearing before the attack of the steam shovels and dynamite. Among the charges of dynamite set off was one of 13½ tons on June 12, which dislodged 86,400 cubic yards of earth and rock, and one of 5.8 tons on June 20, which loosened 33,286 cubic yards. The work at San Pablo is to make a channel 800 feet wide, extending from the Chagres river on the south to the Tabernilla tangent, a distance of 4,630 feet. Some excavating had been done by the French on a 66-meter channel at this point, but when work was begun there on August 8, 1907, there yet remained to be taken out 1,880,000 cubic yards of material. Of this amount 546,008 cubic yards had been taken out up to June 1, 1908. Shovels Nos. 115, 125 and 254 are doing this work, served by one American and nine old French engines, and 64 Oliver dump cars of 12-yard capacity. Three hundred and fifty men constitute the force.

Dredging at La Boca.

The first cut made by the ladder dredge at work in the Canal prism in Panama bay, "broke through" into the old French channel, which it joins at an angle, on June 16, and a skiff was able to go through the opening at extreme low tide. The old French channel curved a short distance south of the dock at La Boca and passed east of Naos and Perico islands. The new channel runs nearly straight from the dock and passes west of the islands. Beginning at a point about 2,400 feet south of the dock the Canal prism crosses a mud flat, bare at low tide, for a distance of about 10,000 feet. It is on this flat that the two ladder dredges have been at work. They began work on the south or ocean side and are in echelon about 1,100 feet apart. They will dredge a "cut" 340 feet wide and 23 feet below mean tide, and it is expected that they will finish in September when they will be moved to a point in the Canal prism north of the dock at La Boca. The balance of the dredging south of La Boca will be done by the *Culebra* which will excavate a channel 500 feet wide and 45 feet below mean tide.

The ladder dredges are held in place by four anchors, one ahead, one astern and one on each side, which are shifted as the

NOTES OF PROGRESS.

(*Continued*)

work advances. The material is excavated by an endless chain of buckets which lift it high enough to dump it through a chute into a clapet, which has a capacity of 300 cubic yards, lying alongside. Each bucket holds about one-half of a cubic yard and is usually well filled with solid material. About fifty minutes are consumed in loading and changing clapets and the combined daily output of the two dredges is about 12,000 cubic yards.

Each dredge is handled by a crew of 45 men and the two dredges are served by five clapets, or self-propelling hopper barges, with a crew of ten men each, and in order that work may go on without interruption each clapet and dredge has a double crew working in 12-hour shifts. Both ladder dredges and all the clapets are among the old French equipment which has been rehabilitated since American occupation. The captain of dredge No. 3 is a Frenchman who was a member of the crew that took charge of the dredge on her arrival in Panama harbor in 1883. He has been connected with the dredge ever since and says he has never been sick a day.

The suction dredge *Culebra* is working in the Canal prism, outside of the mud flat where the ladder dredges are working, and is excavating about 15,000 cubic yards a day.

Equipment for Miraflores Spillway.

Four 18-ton narrow gauge contractors' engines, for use on the spillway work at Miraflores, have arrived from the Davenport (Ia.) Locomotive Works. They were shipped in big cases and unloaded by the crane at Cristobal. Since the American occupation they are the only locomotives that have come to the Isthmus set up. Thirty-five 2-yard cars for use with the locomotives, and about a mile of 30-pound rails have also been delivered at the Miraflores work.

Meteorology and River Hydraulics.

The foundations of a new building for the Division of Meteorology and River Hydraulics are being laid on Gobbler's Knob, Ancon, near the hospital gate. It will be 34 by 28 feet in size, two stories high, with a 7-foot veranda on the front, and will have a basement in which the seismological instruments will be placed. In order to insure an absolutely stable base for these delicate instruments the foundation will be of concrete resting on solid material, and the walls of the building will be constructed of cement blocks.

In addition to the offices of the Division Engineer, the building will contain the seismological station and the Ancon meteorological observatory, which will be moved there from their present location near the court house. The equipment of the seismological station will consist of one 25-k. g. and one 100-k. g. pendulum Bosch-Omori seismograph, one barograph a' poid, one old French seismoscope, and one old French seismograph. The equipment of the Ancon meteorological observatory will consist of one meteorograph (wind direction and velocity, sunshine, rain and cloudiness), one standard barometer, standard thermometer, wet and dry bulb thermometer, maximum and minimum thermometer and self-registering barograph, thermograph, hydrograph and raingage.

Gatun Spillway.

Work on the spillway at the Gatun dam has so far advanced that a channel 75 feet wide and the entire length of 2,000 feet has been completed to grade. The spillway will be 300 feet wide except at its head at the south end where it will broaden to from 600 to 800 feet. In order to utilize to the best advantage the rock that remains to be removed the excavation will be reduced, and one of the three steam shovels now at work will be transferred to some other locality. It is expected that the excavation will be finished about October 1.

Flood Protection and Drainage.

To keep the floods of the Chagres from burying the steam shovels and filling the Cut with water, to take care of the rain falling and shed into the ditch, and to pump out of the prism of the Canal the water that seeps in from the river every day, was the problem at Matachin and Santa Cruz at the beginning of the rainy season.

At Matachin, between "Mile 29" and "Mile 30" in the prism of the Canal, a hill 159 feet above sea level bars the Chagres river and makes it seek a channel which, running around the foot of the hill, bounds it on three sides, thus forming "Matachin Peninsula," a high neck of land 2,680 feet across on the axis of the Canal. Across this peninsula the channel will be 500 feet wide at bottom, from toe of slope to toe of slope. The location of the channel makes it subject to attack by flood at both ends, and the rapid progress in excavating has brought the low shovel cut down to 39 feet, which is below low water in the Chagres at the south or Santa Cruz end (41 feet 5 inches), and only a little above low water mark at the north or Gorgona end (37 feet 5 inches). At no time during the rainy season, moreover, is the river at low water mark, in fact it is usually well above the 40-foot level and in flood, during May, it reached 12 feet above low water and several times was 6 feet above. To guard against a flood turning the cut into a lake, a dyke was built at either end. The north dyke is of earth, is 1,000 feet long, and wide enough to carry two tracks to the east dump. It is 24 feet above low water, and contains 3,804 cubic yards. This is not high enough to insure against any possible flood, as the river has risen above that point several times in the past twenty-five years, but it is protection against any probable high water, and is as high as the barrier can be built without interfering seriously with the running of the dirt trains. Through this dyke at various distances above low water run three 20-inch iron pipe drains each fitted with a valve. In case the Chagres rises above the dykes and floods the cut these drains will be opened as the water in the river recedes, and the cut will drain itself down to where the pumps can easily handle the water that remains. At the south end a similar dyke containing 5,427 cubic yards of rock, is nearing completion.

The water from seepage alone, if allowed to collect in the bottom of the cut for a day or two, would probably interfere seriously with the shovels and the loading tracks. Add to this the quantity that falls as rain, and the necessity for drainage independent of the flood protection system is evident. A ditch has been dug well below grade the length of the cut emptying into a screen-protected sump near the north dyke. From this sump a 10-inch, centrifugal pump lifts the water into the river. A similar sump above grade has been provided for a second 10-inch pump, but one pump will do all the work under normal conditions. These pumps and the engine and boiler that supply the power are old French material that was found in the bush back of Caimito. With little repairing they were set at work and are now doing as well as they possibly could have done a quarter century ago.

An interesting development in connection with the work at Matachin, although not of the drainage problem, is seen on the east dump. Here the river runs between the relocated tracks of the Panama railroad and the foot of the hill through which the cut is being made. It was the intention to build a dump out to the edge of the stream. As the spoil encroached on the water the stream drew away and it is now making a new channel for itself, each day withdrawing from the dump. The dumping will be discontinued as soon as the channel reaches the toe of the hill along which the railroad runs.

At Santa Cruz a problem lacking only a few details of being identical with that at Matachin was solved in the same way. Here, too, the line of the Canal cuts through a hilly peninsula formed by the Chagres. The cut is 2,600 feet long and 500 feet from toe to toe of slope. Borings at close intervals prove that in part of the cut the earth overlies a stratum of rock, the rest of the material to be taken out being entirely earth. The shovels will take out about 850,000 cubic yards, and the remainder, 427,840 cubic yards, will be removed by a pipe-line dredge. A dyke 24 feet high has been built at either end to guard against flood. A 20-inch flood drain has been put in the south dyke, and two 10-inch pumps, one in service all the time, have been installed. These pumps, and the boiler and engine that run them, are old French material found in the jungle behind Bohio.

Construction of Building by Contract.

Sealed proposals will be received at the office of W. G. Tubby, Purchasing Agent on the Isthmus, Cristobal, C. Z., up to 2.30 p. m., Saturday, June 27, 1908, at which time they will be opened in public, for the construction by contract of one standard type church and lodge building at Las Cascadas, C. Z., the contractor to furnish all labor and the Commission all material. Plans and specifications can be obtained upon the payment of a $5 deposit therefor, at his office or at the office of the Chief Engineer, Culebra. A certified check or money order for $25, United States currency, should accompany proposal as evidence of good faith. The right is reserved to reject any and all bids.

In order to reduce the fire risk, the Chief of the Division of Material and Supplies has been directed to collect and return to store the unused oil lamps on the Isthmus which have been replaced by the introduction of electricity.

COLON DRAINAGE CANALS.

Purpose and Efficiency of Surface Drainage Systems.

Work has so far advanced on grading and paving the streets at Colon that it is possible after a fair trial to see that the system of surface drainage by canals is successful. In the sanitation of the city two problems to be solved were the disposal of the sewage and taking care of the surface drainage. A sewage pumping plant overcame the first difficulty, and two canals, one running through the back streets of the built-up section and the other draining swamp land, have accomplished the second object.

Three conditions modify the surface drainage problem. The city is located on an island, Manzanillo, formed by Limon bay, Manzanillo bay, and their connecting channel, known as Folks river. No part of this island was more than two feet above high tide at the time of the American occupation, while much of it was below sea level. The daily high tide at Colon seldom runs over 15 inches, and the neap tide is so low as often to be scarcely noticeable. An ordinary annual rainfall in Colon is 120 inches, and this both adds to the difficulty of surface drainage and increases the necessity for a successful system. The sewage problem was overcome by running the sewers into a sump at Eighth and G streets, behind the city, whence a centrifugal pump lifts the sewage to Folks river.

A committee was appointed September 22, 1905, consisting of F. B. Malby, Division Engineer at Colon; E. W. Clark, Division of Municipal Engineering, and Dr. E. M. Wheeler of the Department of Sanitation, to devise an economical system of surface drainage. In December, 1905, this committee recommended that a canal be built through D street, which would take care of the drainage from Bolivar and D streets, and that filling be done so as to shed the water on the strip of land between Bolivar street and the water front into Limon bay. The amount of filling necessary was about three hundred thousand cubic yards. This plan was approved and the D street canal was dug, water flowing through it for the first time in July, 1906. It extends from a point on Manzanillo bay, between Colon hospital and the Wireless Telegraph station, through Third street to D street and thence through D street to Folks river, a distance of 5,000 feet. It is 10 feet wide and carries about fifteen inches of water at low tide. About a year ago approximately half of the canal was sheet-piled with Oregon fir, creosoted, sheet piling. This work will be completed shortly.

During the past few months the work of paving in the section of the city served by the canal has resulted in clogging the ditch more or less. This work has now been completed, the canal has been cleaned, and a thorough daily flushing has been provided for by the erection of a tidal gate near Fourteenth street on Folks river and one at Third and G streets, near the out-flow into Manzanillo bay. These gates have a cross-section of 8 by 4 feet, and are hung on hinges at the top, opening inwards, for the purpose of admitting the flood tide, and closing when the outflow of the ebb tide begins. The channel at high tide contains about 30 inches of water. At low tide the gate at either end is opened by a winch located alongside, and the water is allowed to rush out. The drop of 15 inches, the difference between high and low tide, is made in 20 minutes. At present the canal is flushed through the gate at Third and D streets into Manzanillo bay, but whenever it seems desirable the direction of the flow can be changed by opening the gates into Folks river. Since the tidal gates have been in operation the canal has done effectively the work for which it was built.

In anticipation of the growth of the city back on to the lowland, an addition already plotted but as yet unoccupied, a canal similar to the D street canal, has been dug through G street. It opens into the D street canal between the tide gate on Third street and Manzanillo bay, and also into Folks river. At present the sewage from the city sump is pumped into this canal and thence flows into Folks river. To provide against the possibility of sewage backing up into the D street canal and there becoming a nuisance, the connection on Third street has been made below the tidal gate. This second canal drains a surface about one thousand feet in width by one mile long, thus providing for an addition equal to or greater than the area now occupied by the built-up section of Colon. The land thus drained must be filled in to grade, however, before buildings may be erected on it.

Number of Employes.

On the last working day in May there were in the service of the Isthmian Canal Commission on the Isthmus, and actually at work, 25,881 persons not including 7,052 persons employed by the Panama Railroad Company. Of the number employed by the Commission 20,584 were in the department of Construction and Engineering, and of this number 3,686 were on the gold roll.

Applications for Employment.

Applications made in the United States for employment under the Isthmian Canal Commission in positions not in the classified service, *i. e.*, all positions except those of clerk, stenographer and typewriter, bookkeeper, draftsman, physician, interne and trained nurse, will hereafter be treated in the following manner:

Each applicant will submit his application on the regular forms substantiated by such evidence of his ability as he desires to forward. If the evidence submitted does not prove the qualifications claimed to the satisfaction of the Washington office, the labor agent in whose section the applicant resides will be directed to make an investigation. Each applicant whose case is under investigation will be informed in advance of the arrival, at the city nearest his home, of the labor agent assigned to his district, in order that he may have an opportunity to visit the agent and prove the qualifications claimed.

The names of all applicants approved by the Washington office, and of those who receive the approval of the labor agents, will be entered on a register of eligibles in the Washington office; and this register will be kept sufficiently large to meet all emergencies. The labor agents on their trips will advertise in advance the expected date of their arrival at various cities in order that the register may be maintained. Regulations for reinstatement in the service of the Isthmian Canal Commission are contained in Circular No. 179 published elsewhere in this issue of The Canal Record.

Ancon Fourth of July Celebration.

The following changes have been made in the athletic events to be held at Ancon on July 4. There will be added to the list of field contests for which medals will be awarded, a shot-put contest with 12-pound shot, which will take place at 10.30 a. m. The prizes for the bucking horses contest will be changed from $25 first prize, and $15 second prize, to $30 first prize, $20 second prize, and $10 third prize. These are special prizes offered by the Ancon Amusement Association. The committee invites applications for entry to this contest, as well as to all the other events, from residents of Panama as well as the Zone.

It has been decided to remit the entry fee of $2 for the pony races scheduled. Entry blanks, therefore, need not be accompanied by the entrance fee of $2, as specified in lists already published.

All persons who desire to participate in the contests are requested to make their entries immediately. Entry blanks may be obtained from Capt. George R. Shanton, Chairman Committee on Amusements, Ancon, or at any of the Commission club houses or hotels. Entry sheets will be closed on June 27.

Attention is called to the schedule of trains on the Panama railroad for July 4th, published on page 344 of this issue of The Canal Record.

Old French Instruments.

Old French surveying instruments were awarded on competitive bids by the Division of Material and Supplies, June 20, as follows: Astronomical transit, good condition, one lense missing, to W. B. Stanton, $20; level No. 3, complete, E. K. Wilson, $5; level, No. 5, complete, W. D. Waltman, $5; level No. 7, complete, W. B. Stanton, $7; level, No. 8, incomplete, P. J. Butler, $2. One of the instruments, a 400 degree transit, complete but useless, was not awarded, as only two bids were received and they were for the same amount. No bids were received on four incomplete levels. The large astronomical transit is the only one of these instruments that could be used to advantage. It is equipped for night work.

The Panama Railroad Company will not allow signs of any kind to be placed on commissary buildings, railroad stations, or any other building owned or occupied by the company. Bulletin boards have been provided for this purpose and the officials will insist that they be used

Notices have been posted at the corrals, and the corral foremen have instructed teamsters, that the custom of wagons following in one another's tracks must be discontinued. Considerable of the maintenance work on the macadam roads, especially during the wet season, is made necessary by the wagons wearing deep ruts. The teamsters have been instructed to distribute travel over the full width of the highways and it is believed that the cost of road repairs will be very much reduced as soon as compliance with these instructions becomes general.

SOCIAL LIFE OF THE ZONE.

Woman's Clubs and Other Features.

The Ancon Woman's Club met in the sun parlor of the Hotel Tivoli, on Wednesday, June 17. Progress was reported on the plans for club reorganization and the committee appointed for the revision of the by-laws was instructed to proceed with its work. A sum of money was voted to the Palo Seco leper colony for the purchase of fireworks. An appropriation has been made for the purchase of books to form the beginning of a club library. The books will be chosen with a view to meeting the wishes of the largest number of members and to this end each member is requested to send a list of the books she would like to Mrs. A. B. Bennett, Corozal, C. Z. The meeting on July 1 will be devoted to Federation business. The president of the Federation, Mrs. Lorin C. Collins, will be the guest of the club and will give an outline of the work planned for the coming year. The social meeting in July will be in charge of the home department.

A concert will be given by the children of the Ancon school in the school house, Friday evening, June 26, at 8 o'clock. Tickets will be sold for twenty-five cents and the proceeds will be devoted to the purchase of a school library.

The educational department of the Culebra Woman's Club, met at the residence of the acting chairman, Mrs. Hanson, Friday afternoon for a discussion of the work for the coming year. A systematic study of the history of Spanish-American countries has been arranged.

The Culebra Social Club gave its regular monthly dance at the club house on the evening of June 20.

Lodge No. 1, Daughters of Pocahontas at Culebra, is arranging to give a banquet to members and prospective members in Fraternity Hall on July 1.

The Sunday schools of the Isthmus held a convention at Culebra on the afternoon of June 14, Practically all the Sunday schools on the Zone sent delegations. The program consisted of congregational singing, prayer, roll call, and a discussion of the following subjects:

1. Method of choosing a superintendent, his qualifications, and how we may help him —By Cristobal Sunday school.
2 What literature should be adopted by a Sunday school, and should all Sunday schools on the Isthmus adopt literature from the same publishers?—By Gatun Sunday school
3. What should be the qualifications of a Sunday school teacher, and how should he or she be chosen?—By Gorgona Sunday school.
4. How may we reach the young ladies and young men, and secure their attendance?—By Empire Sunday school
5. How may we get and hold a good attendance?—By Culebra Sunday school.
6. Value of Sunday school work.

The presiding officer was Mr. J. M. Weaver of Culebra; music director, Mr. H. W. Dohrman of Gorgona. The convention was planned and carried out by a subcommittee of the Isthmian Sunday School Association committee under the chairmanship of Mr. J. C. Forman of Empire, assisted by Mr. E. C. Soule and Mr. J. M. Weaver of Culebra.

The Isthmian Canal Rebekah Club will give a box social and entertainment on Wednesday evening, July 1, at the Commission club house at Gorgona beginning at 8 o'clock. Everyone is invited to attend.

The reception planned by the members of St. Mary's Guild, Empire, has been postponed.

At its meeting on June 18, the Las Cascadas Woman's Club discussed plans for the new chapel and lodge room which is to be built in the town. The club gave a dance at the Commission hotel on Saturday evening, June 20.

Over $40 was raised toward the purchase of a piano at the concert given by the women of Paraiso, on June 19. At the close of the program all present were invited to join in old-fashioned games. Several cakes and homemade delicacies were sold at auction.

The Paraiso Club of Twelve, a woman's card club, met on Friday, June 19, with Mrs. Proud, in honor of her birthday. The club adds considerably to the interest of life in the community. Vacancies in its membership are filled by the chairman.

The White Teachers' Association of the Canal Zone made a trip to Porto Bello on Saturday, June 20, by invitation of the Commission. They left Colon at 10 a. m. on the tug *Porto Bello*, reaching the town in time for luncheon at the Commission hotel. After spending about two and one-half hours in looking over the old Spanish forts and other ruins, the party returned to Colon in time for the afternoon train. The names of those on the excursion were: Mesdames Corcoran, Miracle, Maxon, Holcombe, O'Conner, Hollingsworth, Smith, Hall, Keif and Ball; Misses O'Conner, Kyte, Mills, Yorber, Baker and Johnson; Messrs. Cook, Chandler, Cohen, Coflin, Nevins, Sill and D. C. O'Conner, Superintendent of Schools.

Vacations in Costa Rica.

The Chairman of the Isthmian Canal Commission has been advised by the Acting Chief Sanitary Officer that vacations spent by employes at San Jose, Cartago, or at Alajuela, in the Republic of Costa Rica, will prove beneficial and give the change of climate intended by the regulations governing leaves of absence. The Department of Labor, Quarters and Subsistence has been authorized to approve applications for leave of absence to be spent at the places named.

Ancon Protestant Chapel.

A chapel to seat 200 people has been authorized for the Protestants of Ancon and Panama who are employed by the Isthmian Canal Commission. It will be of the same type as the Roman Catholic chapel, but slightly different in design. The dimensions will be 60 by 25 feet, and the interior will contain, besides the body of the church, a choir room and vestry on either side of the chancel, and a choir stall in the chancel. Over the altar will be a triple window of stained glass dedicated to the memory of employes of the Isthmian Canal Commission who lost their lives by yellow fever. The trusses of the roof will be visible. One of the corner piers of concrete will be so hollowed that a box containing the usual corner-stone memorials can be set in it. The corner-stone will be laid early in August on the return of Archdeacon Bryan from his trip to the United States.

PERSONAL.

Col. G. J. Fieberger, Professor of Civil and Military Engineering at West Point Military Academy, and Judge H. W. Upson, who have been visiting on the Isthmus, will return to the States on the *Allianca* June 26.

Col. William C. Gorgas, Medical Department, U. S. A., Isthmian Canal Commissioner and head of the Department of Sanitation, was elected President of the American Medical Association at its convention held in Chicago early this month.

Capt. F. C. Boggs, U. S. A., Assistant Purchasing Agent of the Isthmian Canal Commission at Washington, left for the United States, Saturday, June 20.

J. W. Sneed has been appointed Superintendent of the Bas Obispo district of the Culebra Division, succeeding Mr. F. L. Hartigan, resigned. James H. Hagan has been appointed Assistant Superintendent.

Among the passengers arriving on the *Allianca* on June 19 were: Hon. Harvey Helm, Representative in Congress from Kentucky; Hon. Herbert G. Squires, American Minister to Panama, accompanied by his daughter and son; Dr. E. P. Beverly and family of Cristobal; Dr. G. H. Edwards and wife of Colon Hospital; Dr. J. M. Lawler of Ancon Hospital; Miss Irma Belding of Culebra, and Mr. and Mrs. Geo. F. Halsey of Ancon.

Obituary.

Michael J. O'Brien, an American employed on the Panama railroad, was found dead in his quarters at Gorgona on the morning of June 14. He had been on the Isthmus about eight months. The circumstances surrounding his death are such that it is believed he was murdered, and David E. Hall a fellow-workman has been held on this charge.

That Pole Vault Record.

THE CANAL RECORD:

I beg to correct "A Correction" in your issue of June 10. Mr. Gustav C. Herz, states that the height of the pole vault "was actually 10 feet, as the records of the judges will show." This is a mistake, as the records show that the pole vault was won at 9 feet. Mr. Herz gave an exhibition vault in which he cleared the bar at 10 feet.

As official scorer, I beg to state that the report as published on June 3, is correct and supported by the records of the judges which are in my possession.

F. C. FREEMAN,
Acting General Secretary.

Culebra, June 12.

Lodge Room for Ancon.

The office of the Chief Sanitary Inspector at Ancon has been moved from the second floor of the office of Labor, Quarters and Subsistence to the new Administration Building. The rooms formerly occupied by the Sanitary Inspector's force will be turned into a lodge room for the use of employes in Panama and Ancon.

Authority has been granted for the extension of the La Boca road from its present terminus in the town of La Boca to the railroad docks and offices, a distance of about 1,550 feet.

ISTHMIAN CANAL APPROPRIATION.

Provision for the Fiscal Year Ending June 30, 1909.

The Sundry Civil Act for the fiscal year 1909, signed by the President on May 27, makes the following provision for the Isthmian Canal:

To continue the construction of the Isthmian Canal to be expended under the direction of the President in accordance with an Act entitled "An Act to provide for the construction of a canal connecting the waters of the Atlantic and Pacific oceans," approved June twenty-eight, nineteen hundred and two:

First. For salaries of officers and employes of the Isthmian Canal Commission, including assistant purchasing and shipping agents, and all other employes in the United States, one hundred and forty-nine thousand dollars;

Second. For incidental expenses, including rents, cable and telegraph service, supplies, stationery and printing, and actual necessary traveling expenses in the United States (including rent of the Panama Canal building in the District of Columbia, seven thousand five hundred dollars, and text books and books of reference, one thousand dollars, and additional compensation to the Auditor for the War Department for extra service in auditing accounts of the Isthmian Canal, one thousand dollars), twenty-seven thousand dollars, and the unexpended balances of appropriations for these objects available June thirtieth, nineteen hundred and eight;

Third. For pay of members of the Commission and officers and employes on the Isthmus other than skilled and unskilled labor, including civil engineers, superintendents, instrumentmen, transitmen, levelmen, rodmen, draftsmen, timekeepers, mechanical and electrical engineers, supervisors, clerks, accountants, stenographers, storekeepers, messengers, office boys, foremen and subforemen, watchmen, wagon masters, stewards, hospital dispensers, internes, nurses, and attendants, including those necessarily and temporarily detailed for duty away from the Isthmus, for the departments of construction and engineering, disbursing, examination of accounts, and labor, quarters and subsistence, and expenses incident to conducting hearings and examining estimates for appropriations on the Isthmus, three million four hundred thousand dollars;

Fourth. For skilled and unskilled labor on the Isthmus, including engineers, conductors, firemen, brakemen, electricians, teamsters, cranesmen, machinists, blacksmiths, and other artisans, and their helpers, janitors, sailors, cooks, waiters, and dairymen, for the departments of construction and engineering, disbursing, examination of accounts, and labor, quarters and subsistence, eight million four hundred thousand dollars;

Fifth. For purchase and delivery of material, supplies and equipment, including cost of inspecting material and of paying traveling expenses incident thereto, whether on the Isthmus or elsewhere, and such other expenses not in the United States as the Commission deems necessary to best promote the construction of the Isthmian Canal, for the department of construction and engineering, disbursing, examination of accounts, and labor, quarters and subsistence, and to enable the Secretary of War to purchase for the Panama Railroad Company two steamships of American register each to be of not less than nine thousand gross registered tonnage and at a cost of not to exceed one million five hundred and fifty thousand dollars, said ships to be controlled and operated by said Panama Railroad Company in like manner as other ships of said Company including the transportation of supplies, equipment and material for use in the construction of the Panama Canal and the transportation of officers and employes of the Panama Canal Commission: *Provided*, That when said ships are no longer required for use as aforesaid in the transportation of supplies, equipment and material for construction of the Panama Canal the same shall be transferred to the Secretary of the Navy for use as colliers or other auxiliary vessels belonging to the Navy, twelve million eight hundred thousand dollars;

Sixth. To continue the equipment and construction of the Panama railroad, to be disbursed directly under the Isthmian Canal Commission, one million one hundred thousand dollars; no part of said sum shall be expended until the obligation of the Panama Railroad Company for the full amount thereof and drawing four per centum interest payable to the United States shall have been delivered to the Secretary of the Treasury of the United States and by him accepted;

Seventh. For miscellaneous expenditures, cable and telegraph service, stationery and printing, and travelling and incidental expenses on the Isthmus for the departments of construction and engineering, disbursing, examination of accounts, and labor, quarters and subsistence, four hundred thousand dollars;

Eighth. For pay of officers and employes other than skilled and unskilled labor in the service of the Government of the Canal Zone, two hundred and twenty-five thousand dollars and the unexpended balances of appropriations for these objects available June thirtieth, nineteen hundred and eight;

Ninth. For skilled and unskilled labor in the service of the government of the Canal Zone, sixteen thousand dollars and the unexpended balances of appropriations for these objects June thirtieth, nineteen hundred and eight;

Tenth. For material, supplies, equipment, new buildings, and contingent expenses for account of the government of the Canal Zone, the unexpended balances of appropriations for these objects, June thirtieth, nineteen hundred and eight;

Eleventh. For pay of officers and employes other than skilled and unskilled labor engaged in the sanitation department on the Isthmus, seven hundred thousand dollars and the unexpended balances of appropriations for these objects, June thirtieth, nineteen hundred and eight;

Twelfth. For skilled and unskilled labor engaged in the sanitation department on the Isthmus of Panama, five hundred thousand dollars;

Thirteenth For material, supplies, equipment, new buildings, and contingent expenses of the sanitation department on the Isthmus, three hundred and seventy-five thousand dollars, and the unexpended balances of appropriations for these objects June thirtieth, nineteen hundred and eight;

Fourteenth. For the construction of the new Panama railroad to be disbursed directly under the Isthmian Canal Commission, one million and eighty-five thousand dollars;

In all, twenty-nine million one hundred and seventy seven thousand dollars, the same to be available until expended: *Provided*, That all expenditures from the appropriation herein and hereinafter made for the Isthmian Canal shall be paid from, or reimbursed to the Treasury of the United States out of the proceeds of the sale of the bonds authorized in section eight of the Act approved June twenty-eighth, nineteen hundred and two.

To pay Pembroke B. Banton, of Waterloo, Iowa, to compensate him for injuries received while in the employment of the Government on the Isthmian Canal, ten thousand dollars.

Ten per centum of the foregoing amounts shall be available interchangeably for expenditure on objects named; but not more than ten per centum shall be added to any one item of the appropriation: *Provided, however*, That any surplus in the appropriations for any of the above classified heads may be used for expenditure under any of the classified appropriations for the department of construction and engineering.

SEC. 2 The foregoing appropriations shall be available to reimburse the Panama Railroad Company for marine losses, or for losses due to destruction of or damage to its plant, equipment, or commissary supplies by fire: *Provided, however*, That upon this appropriation becoming effective the Panama Railroad Company shall cease to carry insurance against loss from causes covered by this appropriation.

SEC. 3. All funds hereafter collected by the government of the Canal Zone from rentals of public lands and buildings in the Canal Zone and the cities of Panama and Colon, and from the Zone postal service, and from court fees, and collected or raised by taxation in whatever form under the laws of the government of the Canal Zone, are hereby appropriated until and including June thirtieth, nineteen hundred and nine, as follows: The revenues derived from the postal service to the maintenance of that service; the remaining revenues, after setting aside a miscellaneous and contingent fund of ten thousand dollars, to the maintenance of the public school system in the Zone; to the construction and maintenance of public improvements within the Zone; to the maintenance of the administrative districts, including payment of salaries and wages incident thereto; to the maintenance of Canal Zone charity patients in the hospitals of the Isthmian Canal Commission, and to the maintenance of administrative district prisoners. A detailed and classified statement of all receipts and expenditures without the duplication of items under this paragraph shall be submitted to Congress after the close of the fiscal year nineteen hundred and nine.

SEC. 4. All sums appropriated hereunder or that may hereafter be appropriated for the construction of the Isthmian Canal shall be available for the payment of the direct obligations of the Canal Commission, or of the Commission's obligations under any contract or contracts that may hereafter be entered into for the construction of the Isthmian Canal.

SEC. 5. All funds that hereafter may be derived from customs duties collected upon property of the United States imported from the Canal Zone are hereby reappropriated for the construction of the Isthmian Canal and may be expended under any of the classified appropriations for the department of construction and engineering.

SEC. 6. All funds realized during the fiscal year nineteen hundred and nine by the Isthmian Canal Commission from the performance of services by the Commission, or from the sale of materials and supplies upon the Isthmus under the custody and control of the Commission, are hereby reappropriated for expenditure under any of the foregoing classified appropriations for the department of construction and engineering, and a full and separate report in detail of all transactions hereunder shall be made to Congress.

SEC. 7. The officers of the Isthmian Canal Commission are relieved from liability to account for eleven thousand two hundred and five dollars and fifty-three cents, for materials and supplies furnished to the sufferers by the Jamaican earthquake of January fourteenth, nineteen hundred and seven.

SEC. 8. The National Academy of Sciences is required, at their next meeting, to take into consideration the methods and expenses of conducting all surveys of a scientific character, and all chemical, testing, and experimental laboratories and to report to Congress as soon thereafter as may be practicable a plan for consolidating such surveys, chemical, testing, and experimental laboratories so as to effectually prevent duplication of work and reduce expenditures without detriment to the public service.

It is the judgment of Congress that any person who holds employment under the United States or who is employed by and receives a regular salary from any scientific bureau or institution that is required to report to Congress should refrain from participation in the deliberations of said National Academy of Science on this subject and from voting on or joining in any recommendation hereunder.

SEC. 9. That all sums appropriated by this Act for salaries of officers and employes of the Government shall be in full for such salaries for the fiscal year nineteen hundred and nine, and all laws or parts of laws in conflict with the provisions of this Act be, and the same are hereby, repealed.

Dog Licenses.

The police force and the Division of Revenues are making a campaign against dogs in the Zone and are enforcing the provisions of the Zone tax regulations requiring that all dogs be licensed. These provisions are as follows:

The following charges shall be made for licenses:

For keeping a dog, one dollar and fifty cents ($1.50) for each male dog and three dollars ($3) for each female dog per year; *Provided*, That dogs used for watch dogs on farms in the country and not permitted to run at large shall not be subject to taxation. The owner of each dog licensed shall keep the animal in good condition, and in case the dog contracts a contagious, infectious, or loathsome disease, it shall be the duty of the owner to kill it immediately There shall be attached to the neck of each dog licensed a tag, to be supplied by the District Collector without charge to the owner of the dog, upon which shall appear the name of the administrative district, the period for which the license is issued, the number of the license, and the words "Dog License." Any dog found at large not wearing such tag shall be taken up by the police and kept during three (3) days in a proper place, after which if the owner shall not appear to claim the dog it shall be killed by the police. If the dog is reclaimed by the owner he shall pay one dollar ($1) fine and the license fee, if unpaid.

OFFICIAL CIRCULARS.

Changes in Canal Organization—Atlantic Division Established.

CIRCULAR No. 183.

Effective July 1, 1908, the following modifications are made in the organization of the Department of Construction and Engineering, as prescribed in circular letters from this office dated April 12, 1907, and August 22, 1907:

The Department of Lock and Dam Construction is abolished.

The Atlantic Division, embracing all territory north of Tabernilla, in which work of the Construction and Engineering Department is being done, is hereby created.

Major William L. Sibert is designated Division Engineer of the Atlantic Division, with headquarters at Gatun.

Major Chester Harding is appointed Assistant Division Engineer of the Atlantic Division.

Mr. William Gerig is appointed Resident Engineer, for duty in the Atlantic Division.

The heads of the Division of Pacific Lock and Dam Construction and Meteorology and River Hydraulics will report to the Chief Engineer direct.

The head of the Colon Dredging Division is relieved from duty in the Department of Excavation and Dredging, and will report to the Division Engineer of the Atlantic Division for assignment to duty.

The heads of the Gatun Dam Construction Division and Gatun Lock Construction Division will report to the Division Engineer, Atlantic Division for duty.

Mr. C. A. Saville is appointed Assistant Engineer and will report to the Chief Engineer direct.

The marine shops at Cristobal will be operated under the Division Engineer of the Atlantic Division.

All mechanical shops in the Atlantic Division will be inspected and reported upon to the Chief Engineer by the Superintendent of Motive Power and Machinery.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, June 19, 1908.

Applications for Reinstatement.

CIRCULAR No. 179.

All applications for reinstatement received by heads of departments and divisions will be forwarded to this office with recommendations.

The names of favorably recommended applicants for reinstatement from the United States will be submitted to the Washington office of the Isthmian Canal Commission for entry on the register of eligibles, and appointments will be tendered such men when their names are reached without the usual investigations by labor agents required in cases of new applicants.

GEO. W. GOETHALS,
Chairman.

Culebra, June 6, 1908.

Physical Examination Required.

CIRCULAR No. 180.

All gold employes hired on the Isthmus will be required to pass a physical examination similar to the examination prescribed for applicants in the United States.

All applicants who comply with the requirements of heads of departments and divisions, and whose employment is desired, will be sent to the district physician at Culebra between 8 and 11 a.m., any week day, for physical examination.

Certificate of physical examination will be attached to the application for employment, and no applications will be considered without such certificate.

Transportation on Panama railroad trains to Culebra and return may be issued to such applicants. The words "Physical Examination" will be shown on the pass in the space provided for the employes rating.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, June 10, 1908.

Encroachment on Railroad Property.

CIRCULAR No. 182.

No encroachment of any kind by employes of the Commission will be allowed on the right-of-way, station grounds, or tracks of the Panama railroad, until after same has been duly authorized by the General Manager of the Panama railroad.

"Right-of-way" shall be understood to cover a strip of ground twenty-five feet in width, measured from the center line of the nearest track and on both sides of the center line.

"Station grounds" is intended to cover all land between switches, irrespective of its width

"Tracks" covers all the tracks or sidings of the Panama railroad over which trains and switch engines may operate.

Any work that may interfere with the trains or switching service of the Panama railroad, whether adjacent to, or crossing tracks, will be performed by employes of the Panama railroad after receipt of properly signed work order; or if requested by the Panama railroad, may be performed by the Commission under the general direction of the Panama railroad.

GEO. W. GOETHALS,
Chairman and Chief Engineer
Isthmian Canal Commission,
President Panama Railroad Company.

Culebra, June 15, 1908.

New Employes and Promotions.

Office of Disbursing Officer,
Empire, C. Z., June 17, 1908.

CIRCULAR No. 39

To all Concerned: Attention is invited to the unauthorized practice of showing on payrolls time earned by new employes and increased pay of other employes theretofore in the service prior to the approval by the Chairman of such employments and increases of pay.

This practice necessitates delay, and entails upon all offices concerned extra work and unnecessary correspondence, and should, therefore, be discontinued.

Time for new employes and increases in pay for other employes should be given on the first payroll after proper authority therefor has been received in your respective offices.

Respectfully,
EDWARD J. WILLIAMS,
Disbursing Officer.

Approved:
GEO. W. GOETHALS,
Chairman and Chief Engineer.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

The first-team bowling tournament opened on Wednesday night, June 17, and Empire, on Culebra's alleys, took two out of the first three games. The tournament will consist of a series of seventy-six games, played as nearly as possible according to the following schedule:

June 17—Cul. at Emp.
20—Gorg. at Cris.
27—Emp. at Gorg.
Cris. at Cul.
July 4—Emp. at Cris.
Cul. at Gorg.
11—Cris. at Emp.
Gorg. at Cul.
18—Cul. at Cris.
Gorg. at Emp.
22—Emp. at Gorg.
25—Cris. at Gorg.
Aug. 1—Emp. at Gorg.
Cris. at Cul.
5—Cul. at Emp.
8—Gorg. at Cris.
15—Cul. at Gorg.
Cris. at Emp.
22—Emp. at Cris.
Gorg. at Cul.
26—Emp. at Cul.
29—Cris. at Gorg.
Sept. 5—Cul. at Cris.
Gorg. at Emp.
Sept. 9—Cul. at Emp.
12—Gorg. at Cris.
19—Emp at Gorg.
Cris at Cul.
26—Cris. at Emp.
Gorg. at Cul.
Oct. 3—Emp. at Cris.
Cul at Gorg.
10—Cul. at Cris.
Gorg. at Emp.
14—Emp. at Cul.
17—Cris. at Gorg.
24—Emp. at Gorg.
Cris at Cul.
28—Cul. at Emp.
31—Gorg. at Cris.
Nov. 7—Emp. at Cris.
Gorg. at Cul.
14—Cul. at Gorg.
Cris. at Emp.
18—Emp, at Cul.
21—Cris. at Gorg.
28—Cul. at Cris.
Gorg. at Emp.

The following prizes were decided on:

1. Challenge cup to be given by the Y. M. C. A. of the Isthmus to the winning team; this cup to become the permanent property of the Y. M. C. A. winning it twice.

2. Three prizes for the highest individual averages for the season: First, gold; second, silver, and third, bronze medal.

3. Prize for the highest individual average for three consecutive games in one night—gold medal.

4. Prize for the highest individual score for one game—gold medal.

5. Four prizes, one each to the player rolling the highest average for each team—silver medal.

6. Five prizes, one to each player on the winning team—gold medal.

No individual will be eligible to win more than one prize, with the exception of the prize for players on the winning team, which is a team prize.

CRISTOBAL.

The third term of educational work will open on Friday, July 10. Classes will be formed in: First Aid to the Injured, Spanish (Advanced, Intermediate and Beginning) Stenography, Mechanical Drawing, Practical Electricity, Common School Branches and Civil Service Coaching. The latter will include classes in all branches covered by the examinations for clerk, bookkeeper and stenographer. Classes will be held in the public school building which is now fitted with electric lights. A tuition fee of twenty-five cents per lesson is charged to cover expenses of instruction and incidentals.

A boys' department is being organized, divided into two divisions, one for employed boys and one for non-employed boys. The age limits are 11 and 16 years. The fees are $5 per year, or $2 for three months. Members of the boys' department will be admitted to the building and the privileges only at specified hours.

The second exhibition of chess playing by Mr Geo. H. Wolbrecht was given on June 17. Fourteen games were played, Mr. Wolbrecht winning thirteen and losing one to Mr. E. H. Fechtig. Four Empire players were guests. Teams in chess captained by Mr. Vifguain and Mr. Turner will play on Wednesday night, June 24 All chess players are invited to be present.

GORGONA.

Standing of local bowling league: LaRose, 3678; Hayes, 3572; McCormack, 3445; McConnaughy, 3402; Lasker, 3400; Cheef, 3374; Collins, 3326; Ferris, 3306; Sprecken, 2675; Varen Kamp, 2299.

Scores of 200 or over made during the past week were: Lasker, 246; Humphrey, 218; Prentess, 208; Hayes, 201; Hinckley, 201.

A fifty-point pool tournament was begun recently with the following men entered: Lasker, Faxan, Pierson, June, Drexel, Knipe, Crockett, Wickel, Maze, Irwin, Christ, McLelland, Ashton, Metzger.

EMPIRE.

The bowling alleys at the Empire club house were opened on Monday evening, June 15, after being closed two weeks for repairs. A duck-pin tournament will be organized, and all the members interested are requested to register at once.

A new assortment of books has just been added to the library, and an order has been given for more.

The first annual meeting and smoker will be held on Monday evening, June 29.

The Empire indoor baseball team defeated the Cristobal team at Cristobal on Saturday evening, June 20, by a score of 22 to 10.

Concert.

By the I. C. C. Band at Cristobal, C. Z., Sunday, June 28, at 2 p. m.

PROGRAM.

1 March	*New Colonial*	Hall
2 Waltz	*Idle Hours*	Wood
3 Selection	*Soul Kiss*	Levi
4 Morceau characteristic	*Dawn of Love*	Bendix
5 Piccolo solo	*Wren Polka*	Damare
OLIVER KIMBALL		
6 a Danse characteristic	*Thesis*	Losey
6 b Intermezzo	*Miss Mexico*	Frantzen
7 Air and variations	*Austrian Hymn*	Godfrey
8 Patrol	*The Blue and Grey*	Dalbey
9 Overture	*Orpheus*	Offenbach
10 March	*Up the Street*	Morse

CHAS. E. JENNINGS,
Musical Director.

Misdirected Letters.

Division of Dead Letters,
Ancon, Station A, June 20, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Alvord, Prof.
Blunt, William T.
Clark, E. R.
Dose, Hy. F.
Garnes, Clement
Gates, E.
Hulett, Wm.
Katsibarden, Jem
Lipsett, Mrs. Robert
Macfarlane, J.
Owens, T. R.
Pintt, J. B.
Rice, Henry
Rundle, Richard
Spratt, R. B.
Squires, Mrs. George B.
Teathers, Frank
Total, Jose W.

COMMISSARY DEPARTMENT.

NOTICE.

All Panama Railroad Commissaries will be closed on Wednesday, July 1, for the purpose of taking inventory.

HIRAM J. SLIFER,
General Manager.

COMMISSARY PRICES

For week beginning June 24 :

FRESH MEATS.		CTS
Beef—Sirloin roast	per lb	28
Rump roast	do	28
Porterhouse	do	28
Rib-roast, short-cut, (not under 3½ pounds	do	20
Rib-roast, second cut	do	17
Chuck-roast	do	13
Soup	do	7
Stew	do	12
Corned	do	10, 12 14
Suet	do	4
Steaks—Sirloin	do	28
Porterhouse	do	28
Rump	do	28
Round	do	20
Veal—Loin	do	23
Cutlets	do	24
Short-cut chops	do	24
Entire forequarters	do	11
For stewing	do	11
Mutton—Entire forequarters	do	9
Short-cut chops	do	20
Leg	do	18
Lamb—For stewing	do	10
Entire forequarters	do	10
Chops	do	30
Legs	do	28
Pork—Cuts	do	20

MISCELLANEOUS.		
Livers—Beef	per lb...	10½
Livers—Calf	each...	60
Sausage—Pork	per lb...	16
Bologna	do	15
Frankfurter	do	15
Sweet bread—Veal	each...	1.20
Beef	per lb...	25
Tripe, pickled, Honeycomb	do	12
Pigs' feet	do	11
Ox tongues	each...	90
Pigs' tongues (salted)	per lb...	15
Pigs' tongues, pickled and cooked.	do	24

POULTRY AND GAME.		
Chickens, dressed (milk-fed),	each...	1.30
Chickens, large	do	1.60
Fowls	do	1.20
Ducks, fatted (fancy)	do	1.25
Squabs	do	45
Suckling pigs	do	4.90
Turkeys	per lb...	28
Eggs, fresh	per doz...	28
Geese (10 lbs.)	each...	2.00
Capons	each...	2.40

CURED MEATS AND LARD.		
Bacon—Strips	per lb...	23
English breakfast, sliced..	do	§26
Ham—Sugar-cured, sliced	do	§25
One-half, for boiling	do	§20
Westphalia	do	45
Whole, Ferris	do	19
Ham—Swift	do	18
Family Beef	do	14
Salt Pork	do	13

DAIRY PRODUCTS.		
Butter—prints, prime quality	per lb...	*35
Cheese—Cream, Phila	each...	22
Neufchatel	do	6
Roquefort	per lb...	45
Young America	do	22
Swiss	do	33
Gouda	do	34
Edam	each...	1.05
Camembert	do	28
Pinxter's	tin...	22
McLaren's	jar...	15
Buttermilk	bot...	**15
Milk, Briarcliff	quart..	25

FRUITS AND VEGETABLES.		
Pineapples	each...	15
Oranges	per doz...	12
Grape Fruit	each...	4
Limes	hun...	70
Lemons	per doz...	15
Cantaloupes	each...	10
Carrots	per lb...	4½
Peaches	per lb...	20
Dandelions	per lb...	14
Spinach	do	7
Rhubarb	per lb...	6
White potatoes	per lb...	3
Cabbage	do	2½
String beans	do	6
Tomatoes	per lb...	10
Lettuce	do	15
Watermelons	each...	40
Sweet potatoes	per lb...	2½
Turnips, Rutabagas	per lb...	4½
Beets	per lb...	6
Corn	dozen...	30
Onions	per lb...	4½
Cucumbers	per lb...	8
Yams	per lb...	3

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* *Indicates reductions from last list*

† *Indicates advance on last list.*

** *Indicates 5 cents allowed for return of bottle.*

§ *Sold only from Cold Storage and not from Commissaries.*

NEW ARTICLES		*Price.* CTS.
Pitchers, cream, china, 1-qt	each...	15
Pans, pudding, 2-qt	do	5
Pans, pudding, 3	do	7
Pans, jelly cake, 1 inch deep	do	5
Graters, cylinder, No. 35	do	6
Strainers, tea, No. 148, black handle	do	8
Pickles, dill (Leggett & Co.'s)	bot...	26
Boxes, sugar, round	each ...	12
Boxes, flour	do	16
Fern dishes, china, No. 15-B4145.	do	2.70
Bath sets, blue, Modelle, No 15-B4148	do	1.15
Ash trays, china, No. 15-B4149	do	30
Soap, sulphur	cake...	7
Soap, Pond's extract	do	20
Dental powder, Colgate's	do	30
Hats, pearl, a104, stock No. 42,279	each ...	2 90
Hats, pearl, a105, stock No. 42,281	do	2.55
Hats, pearl, a108, stock No. 42,282	do	3.35
Hats, pearl, a107, stock No. 42,283	do	4 00
Hats, Caro, a110 stock No. 42,284	do	4 35
Hats, Caro, a103, stock No. 42,285	do	2.70
Undershirts, cotton	each...	50
Mirrors, plain oak	do	2.50
Pens, fountain, short-nib	do	1 90
Cotton and silk Soie Florette, 26-inch	yard...	20
Cotton, Pacific Madras, 32-inch.	do	12
Batiste, Claire cotton, 32-inch.	do	34
Fancy white goods	do	25
Fancy white goods	do	17
Dotted Swiss, 28-inch	do	25
Chiffon veiling	do	35
Cotton sparkle brilliant	do	20
Cotton Cardiff voile 42,298	do	20
Cotton Suisse broderie, stock No. 42,299	do	15
Cotton gingham, stock No. 42,311	do	20
Embroideries, cotton eyelet, stock No. 42,312	do	20
Cotton chech muslinette, stock No. 42,313	do	13
Silk and cotton, 5,000 gauze, stock No. 42,314	do	17
Mackerels, pickled, Norway fancy.	lb...	15
Chocolate, almonds, Ridley's	box...	10
Chocolate, marshmallows	do	10
Bonbons and chocolate	do	10
Chocolate caramels	do	10
Pans, dish, retinned, 30 quarts, stock No 42,337	each...	90
Mugs, Austrian china, stock No. 42,338	do	12
Jars, cracker, Austrian china, No. 42,339	do	1 80
Jugs, Rudalstadt china, 1 quart, stock No. 42,341	do	50
Bowls, nut, Austrian china, stock No. 42,342	do	55
Pipes, briar, No. 811, stock No. 42,323	do	1.90
Pipes, briar, No. 801, stock No. 42,324	do	1.00
Razors, Clauss, No. 2802r, stock No. 42,351	do	1.00
Razors, Clauss, No 5402h, stock No. 42,352	do	80
Strops, automatic, No. 79, stock No. 42,353	do	1.00
Razors, safety, Clauss, No. 1920, stock No. 42,354	do	2 50
Blades, razor, safety, No. 1920, stock No. 42,355	do	50
Hammocks, No. 696, stock No. 42,347	do	3.50
Hammocks, No. 692, stock No. 42,348	do	3.00
Lawn, cotton, Persian, stock No. 42,345	yard...	35
Cotton, mull de Paris, stock No. 42,349	do	45
Wash goods, stock No. 42,356	do	30
Shoes, men's, gun metal, blu., ox., No. 2010, stock No. 42,325	pair...	3.70
Shoes, men's, Russian calf, blu., ox., No. 2012, stock No 42,326.	do	3.70
Shoes, men's, oxford, calf, black, stock No. 42,358	do	4.90
Shoes, men's, oxford, calf, tan, stock No. 42,359	do	4.80
Shoes, women's, pat. Colt, blu., ox., No. 1098, stock No. 42,327	do	3.35
Shoes, women's, tan, blu,, ox, No. 1099, stock No 42,328	do	3.70
Shoes, women's, Russian calf, blu., No. 1068, stock No. 42,329	do	3.35
Shoes, misses', gun metal, blu., No. 389, stock No. 42 332	do	2.15
Shoes, misses', white duck, blu., ox., No. 1049, stock No. 42,333	do	1.15
Shoes, children's, gun metal, blu., No. 389, stock No 42,332	do	1 90
Shoes, children's, white duck, blu, ox., No. 1049, stock No. 42,334.	do	1.00
Shoes, children's, white duck, blu., ox., No. 1049, stock No. 42,335.	do	95
Shoes, boys', gun metal, blu., No. 177, stock No. 42,336	do	2.35
Cigars, Havana, Generales stock No. 42,381	each...	30
Cigars, Havana, Petit Perfectos, stock No. 42,382	do	15
Cigars, Havana, Brevas de Calidad, stock No. 42,383	do	10
Cigars, Havana, Panetelas, stock No. 42,384	do	10
Cigars, Havana, Perfectos Finos, stock 42,385	do	20
Cigars, Havana, Argentinos, stock No. 42,386	do	15
Cigars, Havana, Puritanos Ex Finos, stock No. 42,387	do	10
Cigars, Havana, Flechas de Oro, stock No. 42 388	do	10
Cigars. Havana, Regalia Britanica stock No. 42,389	do	15
Cigars, Havana, Non Plus Ultra, stock No 42,391	do	20
Cigars, Havana, Puritanos Finos, stock No. 42,392	do	10
Cigars, Havana, Invincibles, stock No. 42,393	do	20
Cigars, Havana, Herederos de Corona, stock No. 42,394	do	15
Cigars, Havana, Altezas Reales, stock No. 42,395	do	20
Refrigerators, Grand Rapids, No. 801, stock No. 42,361	do	27.60
Refrigerators, Grand Rapids, No. 805, stock No. 42,362	do	33.70
Mops, No. 1, stock No. 42,377	do	15
Cups and saucers, stock No. 42,364	set.....	25
Sifters, sugar, china, stock No. 42,365	each...	15
Sets, sugar and cream, Austrian china, stock No. 42,366	set.....	1.10
Pitchers, cream, china, ½-pint, stock No. 42,367	each...	15
Pots, chocolate, Austrian china, stock No. 42,368	do	75
Jugs, syrup, and plates, Rudalstadt china, stock No. 42,369	do	70
Sets, china, tea pots, sugar and cream, stock 42,371	set.....	90
Mugs, beer, yellow, stock No. 42,372	each...	35
Pots, mustard, blue deft., stock No. 42,373	do	30
Stand, match, china, stock No. 42,374	do	60
Ties, silk, stock No. 42,378	do	50
Ties, silk, stock No. 42,379	do	70

Ancon Amusement Association.

The Ancon Amusement Association will give a smoker at the Hotel Central, Panama, Friday, June 26, at 8 30 p. m. All members are requested to be present as matters of interest to the association and its future policy will be discussed

The stores and supplies at present held by the Division of Building Construction and the Division of Municipal Engineering are being turned over to the Division of Material and Supplies. After July 1 this Division will issue all building supplies on local requisition. The stores affected include about eight million feet of lumber, $100,000 worth of paints, plumbing goods and hardware, and other construction material.

FOURTH OF JULY TRAINS ON PANAMA RAILROAD.

Supplement No. 2 to Curreat Time Table No. 1, Effective from 6 a. m. Saturday, July 4, to 4.30 a. m., Sunday, July 5, 1908.

SOUTHWARD FIRST-CLASS								MAIN LINE	NORTHWARD FIRST-CLASS							
133	131	129	127	125	123	121	119	*S* *Stop* *F* *Flag Station* STATIONS	120	122	124	126	128	130	132	134
Pass. Local	Pass. Exp.	Pass. Local.	Pass. Exp	Pass. Exp.	Pass. Local.	Pass. Special	Pass Special		Pass. Local.	Pass. Local	Pass. Exp.	Pass. Local.	Pass. Local.	Pass. Local.	Pass. Local.	Pass. Local.
Leave P. M.	Leave P. M.	Leave P. M.	Leave P. M	Leave A. M.	Leave A. M.	Leave A. M.	Leave A. M.		Arrive A. M.	Arrive P. M.	Arrive P. M.	Arrive P. M.	Arrive P. M	Arrive A. M.	Arrive A. M.	Arrive A. M.
10.30	7.00	4 00	1 00	10 00	6.15		6.00	† COLON	9.15	12.15	2.45	6.15	9.15	12 15	3.00	3.10
s 10.31	s 7.01	s 4.01	s 1 01	s 10.01	s 6 16		s 6.01	† Cristobal	s 9.13	s 12.12	s 2.43	s 6.12	s 9.12	s 12.12	s 2.57	3 08
s 10.35	7.04	f 4.05	1.04	10 04	s 6.20		6 04	† Mount Hope	f 9.10	12.09	2.41	f 6 09	9.09	s 12.09	s 2.54	3.06
s 10.41		f 4.11			s 6.26			† Mindi	f 9 02	12 03		f 6 03	9.03	s 12.03	s 2.48	
s 10.47	s 7 13	s 4.17	s 1-13	s 10.13	s 6.33		6 13	Gatun	s 8 55	s 11.58	s 2.31	s 5.58	s 8.58	s 11.58	s 2.43	2.56
s 10 55	7.20	f 4 25	1 20	10.20	s 6 43		6 20	† Lion Hill	f 8.45	11.49	.25	f 5 49	8.49	s 11.49	s 2.34	2.50
s 11.01	7 25	f 4 31	1.25	10.25	s 6.49		6 25	Ahorca Lagarto	f 8.40	11.43	.20	f 5.43	8.43	s 11.43	s 2.28	2 45
s 11.09	7 30	s 4.39	1.30	10 30	s 6 56		6 30	† Bohio	s 8.33	s 11.37	.15	s 5.37	s 8.37	s 11.37	s 2.22	2.40
s 11.16	7.35	f 4.46	1.35	10.35	s 7.05		6 35	† Frijoles	f 8.25	11.27	.09	f 5.27	8.27	11.27	s 2.12	2.34
s 11.24	s 7.41	s 4 54	s 1 11	s 10.41	s 7.13		6 41	Tabernilla	s 8.17	11.21	s 2.04	s 5.21	s 8.21	s 11.21	s 2.06	2.29
s 11.28	7.45	s 4.58	1 45	10.45	s 7 18		6.45	San Pablo	s 8 12	s 11.15	2.00	s 5.15	s 8.15	s 11.15	s 2.00	2.25
s 11.30		f 5 00			f 7.20			Bailamonos	f 8.08			f 5.13		s 11.13		
s 11.35	7 50	s 5 05	1.50	10 50	s 7 25		6·50	† Mamei	s 8 05	s 11.10	1.55	s 5.10	s 8.10	s 11.10	s 1.55	2.20
s 11.43	s 7.56	s 5.13	s 1.56	s 10.56	s 7.35	7.10	6 56	† Gorgona	s 7.56	s 11 03	s 1.48	s 5.03	s 8.03	s 11.03	s 1.48	s 2.13
s 11.48	8.00	s 5.18	2.00	11 00	7.39	s 7.15	7.00	† Matachin	s 7.51	s 10.58	1.45	s 4.58	s 7.58	s 10.58	1.45	s 2 08
s 11.52	8.03	s 5.22	2 03	f 11.03	7 42	s 7.20	7.03	Bas Obispo	s 7.46	s 10 54	1.41	s 4 54	s 7.54	s 10.54	1.41	s 2 04
s 11.58	s 8.08	s 5.28	s 2 08	s 11.08	7.47	s 7.27	7.08	Las Cascadas	s 7.39	s 10.47	s 1.37	s 4.47	s 7.47	s 10.47	1 37	s 1 57
s 12 05	s 8 12	s 5.35	s 2.12	s 11.12	7.51	s 7.33	7.12	† Empire	s 7.31	s 10.42	s 1.32	s 4.42	s 7.42	s 10.42	1.32	s 1.52
s 12.10	s 8.16	s 5 40	s 2.16	s 11.16	7 55	s 7.38	7.16	Culebra	s 7.25	s 10.36	s 1.28	s 4.36	s 7.36	s 10.36	1 28	s 1.46
s 12.19		f 5.49				s 7 50		Paraiso	f 7.13	f 10.24		f 4 24		s 10 24		s 1.34
s 12.23	s 8 28	s 5.53	s 2.28	s 11.28	8.07	s 7.55	7.28	Pedro Miguel	s 7.10	s 10 22	s 1.17	s 4.22	s 7.22	s 10.22	1.17	s 1.32
s 12 28	8 32	s 5.58	2 32	11 32	8.11	s 8 00	7.32	† Miraflores	s 7.03	s 10 18	1.13	s 4.18	s 7.18	s 10.18	1.13	s 1.28
s 12.35	8 37	s 6.05	2.37	11.37	8.16	s 8.09	7.37	† Corozal	s 6.55	s 10.10	1.07	s 4.10	s 7.10	s 10 10	1.07	s 1.20
12.45	8.45	6 15	2.45	11.45	8.25	8.20	7.45	† PANAMA	6.45	10.00	1.00	4.00	7.00	10.00	1.00	1.10
A. M. Arrive	P. M. Arrive	P. M. Arrive	P. M. Arrive	A. M. Arrive	A. M. Arrive	A. M. Arrive	A. M Arrive	† *Telegraph Stations*	A. M. Leave	A M. Leave	P. M. Leave	P. M. Leave	P. M. Leave	P. M. Leave	A. M. Leave	A. M. Leave

Train No. 119 will carry only committee, bands, contestants, and others interested in programme, making such stops as necessary. Card transportation will be issued for this train by General Manager's Office on request of any member of Executive Committee.

Train No. 130 will be held at Panama until after fireworks exhibition is completed.

Trains Nos. 132 and 134 will be held at Panama until after the dance. As these two trains are specially provided for accommodation of people attending the Tivoli dance, they will not handle any but first-class passengers, and the Panama Railroad reserves to itself the privilege of refusing transportation to any applicant.

No form of transportation will be needed for any train except No. 119. Train No. 123 will not stop between Gorgona and Panama.

Train No. 132 will not stop between Panama and Gorgona. Train No. 134 will not stop between Gorgona and Colon.

GEO. W. GOETHALS,
President.

HIRAM J. SLIFER,
General Manager.

J. A. SMITH,
Superintendent.

Movement of Ocean Vessels.

The following is a list of the sailings of the Panama Railroad Steamship Company, of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON

Finance	P.R.R.	Thursday	June	18
Pr. Aug. Wilhelm	H.-A.	Saturday	June	20
Esperanza	P R R.	Wednesday	June	24
Prinz Sigismund	H.-A.	Friday	June	26
Orinoco	R.-M.	Saturday	June	27
Advance	P.R.R	Monday	June	29
Colon	P R R.	Friday	July	3
Prinz Joachim	H.-A.	Saturday	July	4
Allianca	P.R.R.	Wednesday	July	8
Pr Eitel Friedrich	H.-A.	Friday	July	10
Atrato	R.-M.	Saturday	July	11
Finance	P.R.R.	Monday	July	13
Esperanza	P.R.R	Saturday	July	18
Pr Aug Wilhelm	H -A.	Saturday	July	18
Advance	P.R.R	Thursday	July	23
Prinz Sigismund	H.-A.	Friday	July	24
Clyde	R.-M.	Saturday	July	25
Colon	P.R R.	Tuesday	July	28
Prinz Joachim	H.-A.	Saturday	Aug.	1
Allianca	P R R.	Monday	Aug.	3
Finance	P.R.R.	Friday	Aug.	7
Pr Eitel Friedrich	H.-A.	Friday	Aug.	7
Trent	R -M.	Saturday	Aug.	8
Panama	P R.R	Wednesday	Aug.	12
Pr Aug Wilhelm	H -A.	Saturday	Aug	15
Advance	P.R.R	Monday	Aug.	17
Prinz Sigismund	H -A.	Friday	Aug.	21
Colon	P R.R	Saturday	Aug.	22
Tagus	R -M .	Saturday	Aug.	22
Allianca	P R.R.	Thursday	Aug	27
Prinz Joachim	H -A.	Saturday	Aug.	29

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston en route to Colon

FROM COLON TO NEW YORK

Allianca	P.R.R	Friday	June	26
Atrato	R -M.	Tuesday	June	30
Finance	P R.R.	Wednesday	July	1
Esperanza	P.R R	Monday	July	6
Pr. Aug. Wilhelm	H -A.	Tuesday	July	7
Advance	P R R.	Saturday	July	11
Clyde	R -M.	Tuesday	July	14
Colon	P R R	Thursday	July	16
Allianca	P R.R.	Tuesday	July	21
Prinz Joachim	H.-A.	Tuesday	July	21
Finance	P.R.R	Sunday	July	26
Trent	R -M.	Tuesday	July	28
Esperanza	P.R.R	Friday	July	31
Pr. Aug. Wilhelm	H.-A.	Tuesday	Aug.	4
Advance	P.R.R.	Wednesday	Aug.	5
Colon	P R R	Monday	Aug.	10
Tagus	R.-M.	Tuesday	Aug.	11
Allianca	P.R R	Saturday	Aug.	15
Prinz Joachim	H.-A.	Tuesday	Aug.	18
Finance	P R R	Thursday	Aug.	20
Panama	P R.R.	Tuesday	Aug.	25
Magdalena	R -M.	Tuesday	Aug.	25
Advance	P.R.R	Sunday	Aug.	30
Pr. Aug. Wilhelm	H -A.	Tuesday	Sept.	1
Colon	P R R	Friday	Sept.	4
Orinoco	R -M.	Tuesday	Sept.	8
Allianca	P.R R	Wednesday	Sept.	9

FROM NEW ORLEANS TO COLON

Harry T. Inge	U F.C.	Saturday	June	27
Ellis	U.F.C.	Saturday	July	4
Preston	U F.C.	Saturday	July	11
Harry T. Inge	U F.C.	Saturday	July	18
Ellis	U.F C.	Saturday	July	25

FROM COLON TO NEW ORLEANS

Ereston	U F.C.	Tuesday	June	30
Harry T. Inge	U.F C.	Tuesday	July	7
Ellis	U.F C.	Tuesday	July	14
Preston	U F C.	Tuesday	July	21
Harry T. Inge	U F.C.	Tuesday	July	28
Ellis	U.F C.	Tuesday	Aug	4

SAILINGS FROM COLON FOR BARBADOS, CALLING AT TRINIDAD.

Orinoco	R -M.	Tuesday	July	7
Atrato	R -M.	Tuesday	July	21
Clyde	R.-M.	Tuesday	Aug.	4
Trent	R -M.	Tuesday	Aug.	18
Tagus	R -M.	Tuesday	Sept.	1

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American Line sail from Colon at 1 p. m. via Kingston Jamaica, for New York

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's Line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company despatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie Générale Transatlantique) for Venezuelan points, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland Line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Memphian*, about June 27; *Median*, about July 18, and *William Cliff*, about July 27

The following steamers have recently arrived at La Boca; June 13, *Rita*, from northern ports; June 16, U.S.S. *Buffalo* and steamer *Newport*, from San Francisco. Departures were: June 13, *Alexandria*, for southern ports; June 15, *Rita*, for southern ports; June 17, *Mapocho*, for northern ports.

Rainfall from June 1 to 20, 1908, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Maximum in one day.	Total.
Atlantic Slope.		
Cristobal	1.13	4.12
Brazos Brook	2.03	8.20
Gatun	2.70	7 18
Bohio	2.64	10.57
Tabernilla	3.30	8 08
San Pablo	2.49	7.42
Central Section.		
Bas Obispo	1.45	5.14
Gamboa	1.60	4.67
Empire	2.04	6.47
Camacho Dam	2.38	9 42
Culebra	1.76	6 78
Rio Grande	1.83	8.08
Pacific Slope.		
Pedro Miguel	1.24	5.44
La Boca	1.56	4 64
Ancon	1.44	3.88
Upper Chagres.		
Alhajuela	2 00	8.31

CANAL RECORD

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The Canal Record

Published weekly under the authority and supervision of the ISTHMIAN CANAL COMMISSION

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Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Change in Railroad at Gatun.

In order that work on the Gatun dam may continue without further interruption, the present line of the Panama railroad will be torn up at the site of the dam and a new line about five miles long will shortly be in use. The new line will leave the present main line at Tiger Hill and join the relocated line of the Panama railroad at the trestle over the Gatuncillo River and follow it to Mindi, where it will again join the present main line. The station at Gatun will be between the office of the Division Engineer and the town. The track now in use will be torn up only on the site of the dam. That portion of it lying between the dam and Tiger Hill will be used by the trains hauling rock from Bas Obispo for use in the construction of the dam, and the portion between the dam and Mindi by the trains with material from the locks' site and the excavation at Mindi.

Rapid Unloading by Culebra Division.

A Lidgerwood unloading record was made on Tabernilla dump on June 23, when the train crews with four unloaders ploughed the spoil off 54 trains of 17 cars each, the total amount of material unloaded being 17,280 cubic yards. On this same day 52 trains were hauled to the dumps south of Pedro Miguel. On June 22, the Culebra Division loaded 1,719 Lidgerwood flats, and hauled 52 trains to Tabernilla and a like number south of Pedro Miguel.

The conductors and engineers hauling dirt trains between Culebra and Tabernilla are working hard to make three round trips a day over this 16-mile haul and load their own trains. The Superintendent of Transportation in the Culebra Division has maintained continuously that he had a sufficient number of engineers and crews in this service to move 50 loaded Lidgerwood trains a day to Tabernilla, provided the delays on the Panama railroad main line could be eliminated. Since the work has been completed at Barbacoas bridge, not only this has been accomplished, but in addition one engine and crew have been diverted from this service, and yet fifty-one and fifty-two trains are moved daily. It is interesting to see these train crews trying to get to the best steam shovels in order to load quickly and pass other crews in the Cut.

Engine 212 with its crew is the one taken from the Tabernilla service. It has been placed on Western dump service, hauling between Culebra and Mamei dump, and at this work it has established a new record by loading, hauling nine miles, and dumping 294 Western dump cars with 3,528 cubic yards of material, during the six days ending June 20.

Culebra Island Landing Stage

A landing stage, designed especially to meet the conditions of the 22-foot tide at Culebra Island Quarantine Station in Panama bay, has been completed at the Gorgona shops, and will be erected at the quarantine station by the Division of Municipal Engineering. It is composed of three parts, a fixed bridge, a float, and a movable bridge or gang plank joining the float with the fixed bridge.

The fixed bridge is a wooden structure, 26 feet above the low water mark, with one end resting on the island and the other on a cast iron pier. The float is a steel hull of barge construction, 47 feet 4 inches long and 12 feet wide, containing 52,000 pounds of steel and with a 3-inch plank deck. Heavy oak timbers, bolted to two cast iron piers, hold the float in place and allow it to rise and fall with the tide. Each of these piers is made up of nine sections of cast iron cylinders, each 9 feet in diameter and 6 feet 6 inches long. These cylinders were left on the Isthmus by the French and are a part of a hydraulic ship-lift designed by M. Eiffel as an improvement on the common form of lock. The movable bridge is hinged to the fixed bridge at one end, while the other end rests on the float. It is 118 feet 6 inches long and was rebuilt at Gorgona from a section of a conveyor outfit left by the French at Tabernilla. It is a steel frame with a plank walk 7 feet wide. The cost of the float was $5,480.06, of which $2,012.53 is for material; $2,667.33 for labor, and $800.20 for supervision. The labor cost on the hull was 2½ cents a pound. Work was begun on the stage April 30 and shipment was made June 15. Seven cars were required to carry it over the Panama railroad from Gorgona to La Boca, whence it will be towed out to Culebra Island.

The Power Plant at La Boca.

The new electric power and lighting plant at La Boca passes from the management of the Panama Railroad Company to that of the Division of Motive Power and Machinery on July 1. With the plant goes also the control of the La Boca, Ancon and Corozal electric lines, except that part of the plant on the La Boca wharf, which consists of electric unloading cranes, and the transmission line serving them. The equipment in the La Boca plant consists of one 60-k. w. direct current generator, one 325-k. w. direct current generator, one 60-k. w. alternating current generator, one 200-k. w. alternating current generator, one 20-k. w. motor driven exciter, one 20-k. w. engine driven exciter, a large horizontal surface condenser, five 125-h.-p. Manning vertical boilers, equipped for oil burning and fed from four tanks located on a small hill in the rear of the plant.

In connection with this power plant there is being erected an air compressing plant, which will be ready for operation about the middle of September. It consists of two 2200-cubic feet, tandem, compound, condensing air compressors; served by two Sterling water-tube boilers, working at 150 pounds pressure and superheating the steam 100 degrees Fahrenheit. This will be the first plant on the Isthmus to use superheated steam, and high economy is expected from the air compressors, as they are guaranteed to work on 14½ pounds of steam per horse-power per hour. These boilers also will be equipped with oil-burning apparatus.

Air from this plant will be piped through an 8-inch line to the top of Sosa hill, where a connection will be made with the quarry which will be opened for the purpose of furnishing rock for the concrete work at Miraflores. From this point a 6-inch line will continue down the hill across the Panama railroad tracks to the La Boca shipways and shops. When this connection has been made the battery of small French boilers now at the shops will be put out of service, and the small air compressor relieved for other service. The La Boca marine shops will be driven by two 75-h. p. induction motors now on order.

Use of Cement in Canal Zone.

During the past four years, contracts have been placed for 185,150 barrels of cement for use on Canal work, and all but about two thousand barrels of this was delivered in barrels. The loss by broken packages and deterioration during shipment has been about 3 per cent. for cement shipped in bags and about one-tenth of 1 per cent. for that shipped in barrels. Awards were made to the lowest bidders, and the principal brands used have been: Atlas Portland Cement, 90,100 barrels; Alpha Portland Cement, 33,000 barrels; Red Cross Portland Cement, 20,000 barrels; White's Portland Cement, 20,000 barrels; Alsen's Portland Cement, 13,500 barrels. Delivery has been made in small quantities, and it is seldom that the cement is allowed to stay long in storage, so urgent is the demand for it. On this

NOTES OF PROGRESS.

account little is known of the effect of the moist atmosphere on the cement, although it has been determined by test made by the Division of Building Construction that it suffers little or no deterioration on account of the sea voyage. About 75 per cent. of the cement imported is used by the Division of Municipal Engineering in its work of laying pavements, drains, sewers and sidewalks. Most of the remaining 25 per cent. is used by the Division of Building Construction in a variety of ways, such as foundation piers, and chimneys for houses, and in place of tiling for bath rooms.

Masonry work in the Zone is practically confined to reinforced concrete and concrete blocks, on account of the cost of importing bricks and the limited amount of building stone to be found here. It is estimated that the cost of the Administration Building at Ancon, which is a large three-story structure of concrete blocks, was about half what it would have cost if made of stone or brick. Two large magazines for the storage of explosives are to be built of concrete blocks, and several powder houses have been constructed of this material. Tests recently made by firing steel-pointed bullets from a rifle at close range against several blocks show that they are absolutely bullet-proof, as in no case was even the outer wall penetrated or shattered.

A plant for making concrete blocks was installed at Ancon in 1905, and has been maintained with a constant increase in effectiveness and decrease in the cost of its manufactured product. In the 11 months, ending May 31, this plant made 17,969 blocks, at a cost of 12½ cents a cubic foot. They were used in building eight powder and detonator houses, three fire walls, one drive-way, and eight office vaults. The mixture is one part cement, three parts sand, and three parts stone chips. When three months old, blocks made of this mixture have shown a tensile strength of 342 pounds.

Panama Railroad Yard Improvements.

The improvements begun several months ago in the railroad yard at Panama are about completed. The surfacing of the yard is practically finished, and, except about 2,000 feet, all the new tracks are laid. The cinder pit, a 60-foot turntable, engine house for eight locomotives, and an office and residence for the yardmaster are all completed, and the entire yard has been enclosed by a high picket fence one mile and a half long. The new freight house is two thirds completed. The locomotive engineers have moved into their new quarters at the south end of the yard on Avenida Norte, and the quarters for conductors and collectors in the second story of the station are ready for occupancy. The office and residence formerly used by the yardmaster is being remodeled as quarters for freight house and other clerks.

La Boca Dredging Division.

A pile driver is at work on the trestle to be used in building the breakwater to Naos island. One pile driver will be sufficient to build enough trestle ahead of the rock trains to provide space for dumping material.

The opening made by the ladder dredges between the new and old channels in Panama bay has been so enlarged that the clapets are now using it to enter the old French channel on their way out to deep water where the hoppers are dumped. The return is made by way of the new channel.

Ancon Libraries.

The plans for a public library, prepared by the education department of the Ancon Woman's club, are being perfected. A room or rooms properly equipped and furnished will be assigned for library purposes. Steps are being taken to interest the members of the community in the work of organizing a library association and in raising a fund for the purchase of books. It is expected that the local fund can be augmented by one of the numerous library funds in the United States, which are used for the purpose of assisting towns and communities that show by their own efforts their worthiness of such endowment.

The entertainment given by the children of the Ancon public school on Friday evening, June 26, was enjoyed by a large audience, which included not only the parents of the children but other residents of Ancon. A large number of tickets had been sold by the children, and, together with the auction of homemade cakes, which closed the program, a substantial addition was made to the school library fund. Subscriptions which have not been paid or money due the school from the auction of cakes and pastry, may be sent to C. E. Nevius, Division of Schools, Ancon.

Land for Lease.

The General Manager of the Panama Railroad Company has recently issued a notice that the company desires to lease to the highest bidder, for a period of five years, a tract of land known as "Otro Lado," having an area of from 800 to 1,000 acres, containing rubber (balata) trees. The lessee is to have the privilege of extracting the rubber or gum from the trees. The tract lies about two miles back from and on the west side of Limon bay. There are a few foot trails through the tract and the Rio Arenal, a very small stream, runs through it, but it is not navigable, even for canoes. There are no settlements on the land. Any information desired in regard to the property may be had from the office of the General Manager Panama Railroad Company, Colon.

Duties of Superintendent of Public Works.

The circular of June 16, issued by the Head of the Department of Civil Administration, respecting the duties of the Superintendent of Public Works, which is published in this issue of THE CANAL RECORD, makes no change in the present duties of that official. There have been several changes in his duties since the organization of the Division of Public Works, and the purpose of the circular is merely to state his duties as now fixed by resolutions and orders.

Fireproof File Room.

A fireproof file room for the use of the Panama Railroad Company is being constructed at Colon, between the general office building and the railroad. It will be a one-story structure, 40 feet square, built of concrete blocks and will be used for the safe keeping of all the valuable papers and records of the company on the Isthmus.

Repairs to Locomotives.

Repairs to locomotives for the first eleven months of the current fiscal year cost $250,809.21. The average number of locomotives in service was 280, and the cost of repairs per locomotive was $895.72.

Atlantic Division Headquarters at Gatun.

Commissioner Sibert will establish his headquarters as Chief of the Atlantic Division at Gatun, July 1. He has selected a site for a residence east of the village on the road that is being built from Gatun to Cristobal. On his return from his annual leave in November, he will take up his residence at Gatun.

Chagres Division Shovel Record.

The statement made by the Chagres Division of the "highest daily record for May," as printed on page 335 of THE CANAL RECORD of June 17 was in error, in that shovel No. 256, on May 26, excavated 1,680 cubic yards of rock instead of 1,280 cubic yards.

Bad Money.

Capt. George R. Shanton, Chief of Police, directs public attention to a very crude counterfeit of the Panamanian silver dollar, which is being circulated in Panama and the Canal Zone. The police have been directed to caution all business men and, as far as possible, the general public against taking this spurious coin. An effort is being made to locate the counterfeiters.

Rainy Day Problems at Panama.

The Canal work going on now at the Isthmus of Panama is far more interesting than anything done heretofore, for the present rainy season, which will last for the remainder of the year, will thoroughly prove the ability of the organization there to overcome the difficulties that have given the Isthmus its notorious character. No one who has personally witnessed the manner in which the work is going forward now will be at all apprehensive of the successful prosecution of the undertaking. In spite of the magnitude of the operations, their details have been developed until everything moves along with the precision of clockwork, even in the face of tropical downpours and sudden floods in the rivers. The operations are now being conducted like those of a victorious army in the field. There may be a check in some place, a withdrawal in another place, but the general movement is steadily forward. * * * * The Isthmus is a long distance from the United States, however, and if the amount of excavation should fall off during a number of consecutive months, some people may form an opinion that disaster threatens the enterprise. It is unfortunate in one way that so much attention has been drawn to the monthly excavation records in the past, for they are liable to be influenced by so many causes that a succession of low monthly outputs is entirely possible, but will be of trifling real significance, however disturbing it may be to the observer unfamiliar with the working conditions.

* * * * * *

These remarks may sound somewhat dismal, but the engineer who will take the time to visit the Isthmus during the rainy season will see very little there which is indicative of lack of spirit. With the possible exception of a few track foremen, whose experience has been gained in the tropics on roads where the maximun traffic probably does not exceed half a dozen trains daily, the whole construction army seems to be happy and contented, confident in the successful outcome of their work, and taking a just pride in their share of it. No other feeling than this would keep men at work in the cuts and on the dumps during tropical downpours, when an exposure to the rain for a couple of minutes results in a complete soaking from head to foot. A couple of years ago all work would stop, as a rule, whenever the rain amounted to enough to stop a baseball game in the States; at the present time rains will stop nothing provided work has to be done. The exposure to the elements apparently brings no injurious results to the health of the men, and the fact that they willingly submit themselves to it is eloquent testimony to the spirit that animates everybody connected with the great enterprise.—*The Engineering Record, June 6, 1908.*

CROSSING THE ISTHMUS IN 1852.

Report of the Regimental Surgeon, Fourth Infantry, U. S. A.

General George W. Davis, first Governor of the Canal Zone, recently chanced upon a report of a transit of the Isthmus of Panama made by the Fourth regiment of infantry, U. S. A., in 1852, during which there was a severe outbreak of cholera. In his letter transmitting the report, General Davis says: "The regiment in question, the Fourth infantry, was one that has had a very distinguished personnel in its history, and one of the officers of that regiment in 1852, referred to in this report by name, was Captain, afterwards General and Commander-in-chief, Ulysses S. Grant."

The report follows:

San Francisco, Calif.,
September 14, 1852.

Sir: The occurrence of malignant cholera in the Fourth regiment of infantry, which I accompanied from New York to California, seemed to me to require that I should make a special report to you upon the subject. I have, therefore, made a report of the sick of that regiment up to the 31st August, and beg leave to accompany it with the following remarks:

The regiment was concentrated at Fort Columbus, New York, in obedience to orders from the War Department, the last company having arrived on the 23d June. On that day 243 recruits were received and examined. On the evening of the 2d July, a telegraphic order was received for the troops to embark on the 5th. On the evening of the 3d July, about 150 more recruits were received and examined. On the 5th July eight companies of the regiment, with the band and headquarters, were embarked on the United States mail steamer *Ohio*, bound for Aspinwall, New Granada. We had a good deal of diarrhœa among our men during their stay upon Governor's Island, but it was quite manageable, and when we embarked I did not consider it necessary to leave but one man in the hospital; he was recovering from a broken leg, and would not have been able to march across the Isthmus. The *Ohio* was a large ship, as to tonnage, and in that respect, capable of carrying our whole command; but her room is so badly distributed that we should have been crowded had there been no other passengers. Our command, including women and children, was about 800. We had, however, all told, passengers, crew, etc., 1,100 on board. This was altogether too many people for her accommodations at that season of the year, and in a voyage to the tropics. We, however, reached Aspinwall on the 16th July, without losing a man. We had a number of cases of both diarrhœa and constipation, and a few cases of fever on the voyage. Our sick report, nevertheless, was very small upon landing. One man (the bandmaster), sick with chronic diarrhœa, had sunk so much on the voyage I was obliged to leave him on the ship, where he died two days afterwards.

On the voyage I had endeavored to impress upon the commanding officer the necessity of preventing the men from eating the fruits of the country, and from indulging in any of the liquors they would meet with on the march. A very judicious order, embracing these views, was issued previous to our debarkation. I am sorry to say, however, it was not observed on the march. Had it been strictly obeyed, I think we should have been spared much suffering. It being the height of the rainy season when we reached the Isthmus we were much embarrassed by the state of the roads; by rain every day; by the extreme heat, and by the epidemic influences prevailing.

Cholera existed at Aspinwall when we landed. It had been very fatal a short time previously among the laborers on the railroad, in consequence of which they had very generally abandoned the work. Forty laborers out of one hundred, I was told, had died at one station. It was existing at both Cruces and Gorgona on the route—points we were obliged to pass—and at both of which we were unfortunately detained. We found it also at Panama upon our arrival there.

Notwithstanding all this, and the cautions in the order of march, the men had no sooner been permitted to land to procure water, than numbers of them sought the first tavern they could find, to indulge their fatal craving for liquor. Many were brought back on board that night intoxicated and drenched with rain. Fruits were also eaten with avidity whenever they could be procured.

As we did not reach Aspinwall until after the departure of the daily train of cars we were obliged to remain there until next morning. Our baggage, however, was principally landed, and stowed in the cars that afternoon, and this operation was completed early the next morning. When the hour arrived for starting, it was found that the locomotives were too light to carry more than half our men in one train. They were accordingly despatched in two trains at intervals of an hour, and then the baggage had to be left to be brought up by a return engine. Arrived at Barbacoas, the present terminus of the railway, Colonel Bonneville informed me that it was determined to march the main body of the men from Gorgona to Panama; that the sick, the women, the baggage, and one company would proceed to Cruces, where the mule transportation would be provided, and whence they would also proceed to Panama. I was ordered to accompany this last detachment. Colonel Bonneville then proceeded at once in boats to Gorgona. Colonel Wright was to follow when the baggage came up. The baggage did not arrive till after dark; too late to transfer it to the boats.

In the morning it was discovered that the hospital stores were not contained in those cars. I had a special messenger sent back to bring them up immediately. Colonel Wright went on with his battalion, leaving me, a subaltern, and a small guard, with the sick. My messenger did not return till late in the afternoon, and then brought up but four packages out of thirty, declaring there were no more to be found. This made it necessary for me to return to Aspinwall, which I did that night upon a hand car. I found my stores in the first baggage car I met with in the depot, and the next morning carried them to Barbacoas in a special train furnished me by Colonel Totten, the engineer of the road. I proceeded at once up the river to Cruces, a distance of twelve miles, against a rapid and dangerous current, in a small boat, propelled by setting-poles only; and by dint of great exertion and determination succeeded in reaching that point at about 9½ at night. My hospital boat did not get up until next morning. At Cruces, very much to my surprise, I found the regimental quartermaster, about seventy men, and all the women and children. This was Monday night. He had been there since Sunday morning, and no transportation for the baggage had yet been furnished by the contractors. The detachment was encamped on the river, at the landing-place and all the baggage piled up in the vicinity. At this time all were well, and my sick had entirely recovered. Transportation was promised in the morning, and I determined to push on as rapidly as possible, to overtake the main body, at that time probably at Panama.

In the morning we were again disappointed in transportation. This was Tuesday, 20th July. While endeavoring to get from the contractor mules for myself and necessary stores, I was called to see a soldier said to be ill of cramps. I found a case of malignant cholera, of the most aggravated character. The man died in six hours. Upon instituting a rigid inquiry I found that the disease was, and had been, for some time prevailing in the town; that numbers had died, and were still dying there; and that a physician had been sent there from Panama for the special purpose of treating such cases. It was of course impossible for me to leave the detachment under such circumstances. I, therefore, decided to remain until the men were all started, and this more especially, as I was informed from day to day by passengers from Panama that the main body had gone on board the transport in Panama bay, and that there was no disease among them. I thought it but prudent, however, to urge the quartermaster to as speedy a movement from the place as possible; and by my advice he determined if the requisite transportation was not furnished by the next morning, to procure it himself of anybody, at any price, and require the contracting parties to pay for it. It must be observed that a subcontractor had agreed to furnish mules for 11 cents a pound, and all this time they were in demand for private transportation at 16 to 20 cents. We had the vexation of seeing hundreds of citizens forwarded, with scarcely an hour's detention, while our men were kept at the most unhealthy point of the Isthmus for five days, with no adequate effort on the part of the contractors to forward us to Panama. The next morning we were no better off. Captain Grant then went into the market, and succeeded in completing a contract before night with a responsible person, for the requisite number of mules, to be ready early the next day. In the meanwhile several cases of cholera occurred, and we had four more deaths. One man convalesced from the disease, but too ill to move, I was obliged to leave in charge of the alcalde and the town physician. I recommended, under the circumstances, that the whole detachment should be furnished with mules, lest the fatigue of marching over so desperate a road should excite the disease in men predisposed to it, and they should perish, without the possibility of my aiding them, on the way. This was done, but notwithstanding every precaution on our part, three fatal cases did occur on the road.

In compliance with Captain Grant's contract, a large number of mules, both saddle and cargo, were brought up in the morning, and despatched as fast as possible with riders and burdens, respectively; by 1 p. m. about one-half our men and nearly one-half our baggage were on the road. The usual rain then coming on operations were necessarily suspended for the day. I must here remark that the preservation of anything like order or organization in the forwarding of troops or baggage on mules across the Isthmus is altogether out of the question. The moment a rider or a cargo is placed upon a mule's back that moment he must set out, or the muleteer strips his mule and carries him off. Our movement was, therefore, of necessity, a straggling one, each man making his way to Panama as he best could, when once mounted. The next morning, before 10 o'clock, the last of our men was on the way, and most of the remaining baggage, and I then set out myself. I reached Panama before dark, but too late to go to the ship that night. I learned that she was lying off Taboga, 12 miles down the bay; that cholera had broken out on board and carried off a number of men. A small steamer communicated with her once a day only, leaving Panama at 5 p. m. I was, therefore, detained at Panama until that hour the following day. Here I learned that six of the cabin passengers by the *Ohio* (our ship) had died in Panama of cholera contracted on the Isthmus.

I proceeded to the ship on the first opportunity, and there was informed that the main body had passed three nights on the road between Gorgona and Panama without shelter; that they were drenched by the rains every day; that the order relative to fruits and drink had been entirely disregarded, and in consequence several men had been attacked by cholera, and died on the way. After their arrival upon the ship, the surgeon of that and of two other ships of the same line had been constant in their attendance upon the sick, and abundance of hospital stores and medicines had been furnished by the company. That day (Saturday) the sick had been removed to a hulk anchored near, and a detail of men to nurse them, under the charge of an officer, had been sent on board by the commanding officer. I went on board the hulk and passed the night there. Several new cases were sent on board from the ship during the night. The next day, Dr. Martin, of the *Columbia*, kindly volunteered to take my place, and I got some sleep. I passed the next night again on board the hulk, besides frequent visits during the day. The next day I was obliged to apply to the commanding officer for assistance. It was impossible for anyone to endure such an amount of physical and mental exertion any longer. We had, fortunately, among our passengers, Dr. Deal, of California, a physician of experience and intelligence, with whom a contract was made to perform the duties of an assistant surgeon on board the *Golden Gate*, from that time until she reached San Francisco, for the moderate sum of $250. Had we known what was before us we could not have secured his services for ten times the amount.

Tuesday, 27th July, the disease was evidently subsiding. No new cases had occurred during the night, and the sick were, for the most part, improving. I entertained strong hopes that as soon as our baggage was all received we should be in condition to prosecute our voyage. In this hope, however, we were doomed to be disappointed. In the afternoon of that day we had a heavy rain, against which many of our men were but ill protected. Upon the arrival of the small steamer in the evening about a dozen knapsacks were received, that had been lying and moulding somewhere on the Isthmus for a long time. The men to whom they belonged seized upon them immediately with great eagerness, and opened them to get a change of clothing. I was afterwards informed that some of these men fell sick while in the act. Be this as it may, in about 20 hours afterwards they were all taken ill of cholera in its worst form and within an hour of each other, and most of them died. The disease having thus reappeared, it was determined to land the troops. There being shelter for the sick upon the island of Flaminco, about six miles from Panama, the debarkation was effected upon the 29th; the sick were placed in huts, and the well in a few tents and under sails stretched over poles. On the 1st August, Brevet Major Gore was attacked, and died on board the *Golden Gate*. His was the last case of cholera that occurred, and he the only officer we lost. I recommended to Colonel Bonneville to destroy any other knapsacks that might be received from the Isthmus, and to have the ship fumigated with chlorine, which was done. Several other officers were threatened, but, by timely means, escaped a decided attack. Upon the island a number of those previously ill died, but no new cases appeared. The fever of the country, however, began to show itself, which made all anxious to leave Panama as soon as possible.

On the 3d August, the *Golden Gate* determined to go to sea the next day, but refused to take on board more than 450 of our people, and expressly declared that she would not receive a single sick man. To this extraordinary demand we were forced to submit, and I was accordingly ordered to remain on the island with the sick, most of the women and children, and one company of troops to act as nurses, etc., until the next steamer should sail. I approved of the proposal to divide the command between two ships, but could not agree as to the propriety of leaving all the sick for another steamer, as a similar objection would probably be made to their reception on board of her. I was, however, overruled, and on the 4th August, the *Golden Gate* sailed with 450 well men, Dr. Deal acting assistant surgeon. The three months' supply for the regiment being stowed away in the hold of the ship, I placed it in charge of Dr. Deal, with the packer's list, that he might use such of the medicines and store that he should need on the voyage; the remainder to be left with the medical purveyor at Benicia. Dr. Deal was discharged at the termination of the voyage, and I have not seen him since, nor have I had any report from him. I have ascertained, however, that he had ninety cases of fever and diarrhœa on the voyage, and three deaths. These are embodied in my report. I have also learned that, not being able to find the box containing the sulphate of quinine, he had purchased two ounces at Acapulco and borrowed more of the ship, which has since been returned.

Upon the 7th of August it was announced that the steamer *Northerner* would take us on board and sail the next day. The surgeon of that ship was sent on shore to inspect our men; and although he thought there were several cases of fever that would die, still, as no infectious disease was prevailing, he made no objection to receiving them on board. Arrangements were accordingly made for embarking. The sick were to be first sent on board and accommodated before the ship should be crowded with the well. By a mistake of the agent a scow was sent to the island this evening to take us on board. In this scow our baggage was first stowed, and the sick placed upon it. In a few minutes the whole was flooded away, owing to the leaky condition of the scow. Our sick and baggage were hastily transferred to boats alongside, and thus sent to the steamer. It was this accident that caused the damage to the instruments that were afterwards condemned by a board of survey.

It appeared afterwards that it was not intended we should be embarked that evening, and the consequence of the blunder was a remonstrance on the part of the other passengers against our sick being permitted to remain on board. After a great deal of negotiation it was finally agreed that a few of the worst cases might be left in hospital at Taboga, under the special charge of the agent of the company, he guaranteeing that every comfort and suitable medical attendance should be provided for them, and they forwarded as soon as possible. I considered it of the greatest importance that we should leave that climate, as our well men were daily sickening with the fever. Accordingly four men were selected to be left, by the ship's surgeon, which satisfied the passengers, and on the 8th of August we embarked the remainder and put to sea.

We arrived at Benicia on the 26th of August, having lost but one man on the voyage. He died of the secondary fever of cholera. Upon my arrival at Benicia I found a large sick report from among the men shipped on the *Golden Gate*. They were ill of diarrhœa, dysentery, and typhoid fever. The men were destitute of clothing, and were in tents, exposed to intense heat by day and to very cold nights. By the advice of Assistant Surgeon Griffin they were ordered from the tents into some new cavalry stables just finished, and with marked good effect. The character of the fever was decidedly typhoid, and the dysenteries generally assumed the same type.

With regard to the treatment of the cholera as it prevailed among us, I have only to say that all the usual means were tried, and with the usual want of success The first cases were nearly all fatal. I think the free exhibition of brandy with capsicum and chloride sodium was about as successful as anything. We found the acetas plumbi, in doses of five to ten grains, a valuable means of restraining the diarrhœa. I feel sure many cases were relieved by it that would have terminated in malignant cholera without speedy relief. Mustard and bottles of hot water with frictions of the surface externally, camphor, calomel, and quinine internally, were freely used. But, as I have already remarked, and as usually happens in severe epidemics, the chances are that the cases first attacked will die, and that the ratio of the mortality will diminish with the duration of the epidemic. In this epidemic we lost about eighty men.

Very respectfully, your obd't serv't,

CHAS. S. TRIPLER,
Surgeon, U. S. Army.

BRIGADIER-GENERAL LAWSON,
Surgeon-General, Washington, D. C.

Annex to Cristobal Jail.

An annex to the jail at Cristobal is being built. It is 30 feet by 60 feet, two stories high, constructed of concrete blocks, and will cost about $4,000. This addition is necessary on account of the crowded condition of the jail, due to the number of district prisoners confined there.

Living Conditions in Panama.

The living conditions for Americans on the Isthmus now are entirely different from what they were eighteen months ago, and while former complaints may have been justified, the skilled force now on the Canal Zone are unquestionably better paid, better housed and better fed than on any construction work ever undertaken in the country. The men acknowledge this and state that it is this fact only that keeps them there. There is nothing about life in the tropics that is attractive to the average man, for he can live better for the same money at home than on the Isthmus. There is no loafing in a hammock with a mint julep in one hand, a long cigar in the other, and an attendant to fan away the flies; these conditions exist only in the advertisements of steamship tours. It is a long ways home, the continued heat makes people's nerves a bit sensitive, and the opportunities for amusement are limited. The Government needs the best men there, and in order to get them it has had to pay high wages and give quarters and conveniences far beyond anything a contractor would offer in the States. If it should abandon this policy by cutting down wages or reducing the conveniences now given, there would be an exodus of the best men from the Zone. Poorer men would take their places, and no reader of *The Engineering Record* needs to be told how the cost of construction mounts up when poor men handle steam shovels, construction trains, track, dredges and machine tools. The Canal will be an expensive undertaking at the best, and the best way to save money will be to avoid any experiments with cheap skilled labor.—*The Engineering Record, June 13 1908.*

The Ancon corral has been fitted with electric lights in order to diminish the fire hazard and to faciliate night work.

CHANGES IN PERSONNEL.

New Secretary of War Resignation of Commissioner Smith—Arrival of Majors Devol and Wilson.

William H. Taft has resigned as Secretary of War to become a candidate for the Presidency, and Luke E. Wright has been appointed his successor, the appointment being effective July 1.

Jackson Smith, Commissioner, and head of the Department of Labor, Quarters and Subsistence, will leave the Isthmus on July 16, and at the expiration of his leave of absence will sever his connection with the Isthmian Canal Commission. The official correspondence relative to his resignation follows:

CULEBRA, June 1, 1908.

My dear Mr. President. With your approval, I wish to take the leave due me of about sixty days, beginning July 16th next. Upon the completion of this period, it is my desire to retire from the Isthmian Canal Commission, and I will accordingly be glad if you will accept my resignation as a member of the Commission and head of the Department of Labor, Quarters and Subsistence, effective September 15th, 1908.

The three years service I have rendered on the Isthmus during the period of organization, with its difficulties of a number and nature not again to be encountered before the completion of the work, constitute the best evidence of the interest I have in the undertaking.

I thank you for the honor you conferred upon me, and the evidences of appreciation you have shown of my service.

I have the honor to be, Mr. President,
Your most obedient servant,
(Sgd.) JACKSON SMITH.

To the PRESIDENT OF THE UNITED STATES,
(Through the Secretary of War,)
Washington, D. C.

THE WHITE HOUSE,
Washington, D. C., June 3, 1908.

My dear Mr. Smith: I have your letter of June 1st in which you ask to be permitted to retire from the Isthmian Canal Commission on the 15th of September and that you be relieved from your duties in connection with the Commission on the 15th of July in order that you may enjoy the leave which is due you as a member of the Commission.

I accept your resignation in the terms in which you offer it. I cannot permit this occasion to pass without expressing formally to you my appreciation of the earnest, thorough and effective service which you have rendered in organizing the Department of Labor, Quarters and Subsistence, and in developing it to such a state of efficiency that the task of your successor will be comparatively an easy one. The supreme importance of the Department of Labor, Quarters and Subsistence in the work of construction, of course, is known to every one familiar with the work.

With best wishes for your future, believe me,
Very sincerely yours,
(Sgd.) THEODORE ROOSEVELT

HON. JACKSON SMITH,
Member Isthmian Canal Commission,
Ancon, Canal Zone.

Maj. Carroll A. Devol and Maj. Eugene T. Wilson arrived on the Isthmus, June 30, and reported to the Chairman and Chief Engineer, under the following orders:

WAR DEPARTMENT,
Washington, June 16, 1908.

Special Orders No 141
(Extract.)

* * * * * * * * *

12. Major Carroll A. Devol, quartermaster, is relieved from duty in this city, and will proceed to Culebra, Canal Zone, and report to Lieutenant Colonel George W. Goethals, Corps of Engineers, Chairman and Chief Engineer Isthmian Canal Commission, for duty in charge of the department of labor, quarters, subsistence aud commissary. The travel directed is necessary in the military service.

(1391900, A.G.O.)

13. Major Eugene T. Wilson, Coast Artillery Corps is relieved from duty at Fort Totten, New York, and will proceed to the Canal Zone and report to Major Carroll A Devol, quartermaster, for duty in charge of commissary The travel directed is necessary in the military service.

(1391900 A.G.O.)

14. Major Wendell L. Simpson, Nineteenth infantry, is relieved from duty in this city, and will proceed to New York City, take station at that place and report to the Purchasing Commissary, New York City, for such duty as may be found necessary, and to Major Carroll A. Devol, quartermaster, for duty pertaining to purchase of supplies for the Panama Railroad Company and Isthmian Canal Commission. The travel directed is necessary in the military service.

(1391900 A G.O.)

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By order of the Secretary of War:
J. FRANKLIN BELL,
Major-General, Chief of Staff

Official:
HENRY P. McCAIN,
Adjutant-General.

Major Devol was born April 7, 1859, in Ohio; was graduated from the Pennsylvania Military College in 1878, and commissioned as second lieutenant in the Twenty-fifth infantry, September 1, 1879. He was made captain and quartermaster, August 21, 1896, and promoted to major in the Quartermaster's Department, May 5, 1902. In the volunteer service he was major in the Quartermaster's Department from October 7, 1898, until February 6, 1899, when he was breveted lieutenant colonel.

Major Wilson was born May 28, 1867, in Ohio; graduated from West Point Military Academy in 1888, and was assigned to the light artillery; February 12, 1895, he was promoted to first lieutenant; February 2, 1901, to captain, and January 25, 1907, to major. From May 20, 1898, to June 13, 1899, he was in the volunteer service and from September 24, 1898, until his discharge, was in the subsistence department, first as major and later as brevet lieutenant colonel.

FOURTH OF JULY.

Arrangements for Ancon Celebration.

At a meeting of the Executive Committee in charge of the Ancon Fourth of July celebration, held on Friday, June 26, a program for the day was approved. It will be printed as a souvenir of the occasion. The events of the day are practically the same as published in previous issues of THE CANAL RECORD. The fireworks will be set off in front of the Hotel Tivoli, and in case of rain on the night of the Fourth, they will be set off on the following night.

The Cristobal Program.

The following program has been arranged for the Fourth of July celebration at Cristobal:

Morning—6.30 a. m., ragamuffin parade, prize, boys and girls, $1.50 each; prize for youngest boys, $1; youngest girls, $1. 8 a. m., "colors;" free distribution of fire crackers to the children. Aquatic events commencing at 9 a. m.—Sailing race, prize, pennant. First-class launches, first, $10; second, $5. Sculling race, first, $5; second, $3. Two-oar race, first, $10; second, $5. Four-oar race, first, $15; second, $10; third, $5. Canoe race, first, $6; second, $4; third, $2. Entries for boat races should be sent at once for classification either to M. H. Macfarlane or W. O. Adams at Cristobal, or A. P. McCulloch at Gatun.

At 12 (noon) the national salute of twenty-one guns will be fired from the United States war vessels in the harbor.

Afternoon—Band concert by the Canal Zone band at 2 and 8 p. m.

Competitive sports, commencing at 1.30 p. m.—Hose race between volunteer fire companies, one prize of $40, if there are two entries. Sack race, first, $5; second, $3. Three-legged race, first, $6; second, $4. Obstacle race, first, $15; second, $5; third, $2.50. 100-yard dash, first $4.50; second, $3; third $2. Alcalde's race, (relay) four-men teams, prize, $14. Shot-put, first, $5, second, $3.50. Tug-of-war, five-men teams, prize, $12.50. Boys' pole vault, first, $2.50; second, $1. Boys' 75-yard dash, first, $3; second, $2. Boys' bicycle race, first, $2.50; second $1. Fat men's race (200 pound or over), prize, $6. Greased pole, prize of a $5 gold piece at top of pole. Entries for above must be sent in not later than July 2 to any of the following committee from whom entry blanks may be obtained: C. R. Chisholm, G. B. F. Pompeji, P. N. Bressie, J. E. Keefe, all of Cristobal. Exhibition run by the Cristobal Fire Department at 4 o'clock.

The fireworks display will commence at 8 p. m. from barges anchored off Cristobal point and will include the following set pieces: The American Flag, Incandescent Suns, Weird White Falls, Aladdin's Jeweled Tree, Pyric Cascade, Portrait of President Roosevelt, and "Good Night." In addition there will be thirty-nine separate displays of batteries of rockets, bombs, fire balloons, acrobatic candles, meteorites, shells, etc.

During the display of fireworks an illuminated boat parade will take place, a prize of $25 being distributed between the two best decorated boats. Entries for the boat parade should be made with W. S. Perry, Cristobal.

Special features are being arranged for the crews of the warships in the harbor and, if possible, arrangements will be made for a special electrical and searchlight illumination of the ships in the evening.

Special arrangements will be made for visitors at the Commission hotel and a public refreshment stand will also be erected on the Point. The Commission club house will also be opened for public accommodation. A public dance will be held at the Commission club house on the night of July 3, a cordial invitation being extended to all.

The last train from Cristobal on the night of the Fourth will leave at 10.30 p. m. For other trains see special schedule of the Panama railroad.

Las Cascadas Clubs.

The Las Cascadas Woman's Club had a good attendance on June 25. The business meeting was short and the remainder of the afternoon was devoted to games. Refreshments were served. The meeting on July 2 will be for the election of officers. At the dance given on Saturday, June 20, there was a good attendance, and the money made by the sale of ice cream and cake was added to the treasury.

The Initiatory card club of Las Cascadas met at the residence of Mr. and Mrs. Chas. Lingo on Wednesday evening June 24. Prizes were won by Mrs. Wm. Bowers, Mr. A. N. Naylor and Mr. and Mrs. Fahr. The club will meet at the home of Mr. and Mrs. Geo. Lingle on July 1.

In the fifteen corrals under the Division of Material and Supplies are stabled 129 horses and 450 mules for public use, and 56 horses for private use.

SOCIAL LIFE OF THE ZONE.

The Public Schools.

The Zone public schools concluded their work on June 30. At the beginning of the school year, October 1, 1907, there were enrolled 361 white and 880 colored children, and in April, when attendance was at its maximum, this enrollment had grown to 533 white and 1,329 colored children. The number of schools for white children is 11, and for colored children 16. Compulsory attendance of children between 6 and 16 years of age, and text books supplied by the Canal Zone government are features of the system. The regular hours for school are from 8 to 11 a. m. with a short recess, and from 1 to 3.30 p. m., the primary school children being dismissed an hour earlier. Children of nonemployes and those living outside the Zone limits are allowed to attend the Zone schools on payment of $2 gold a month, and the number of children of these classes in the schools of Ancon, Cristobal and Colon is steadily increasing. In April, 15 such children were in attendance

Schools for white children are located at La Boca, Ancon, Pedro Miguel, Paraiso, Culebra, Empire, Las Cascadas, Gorgona, Gatun, Cristobal and Colon Beach (Cristobal). There are several stations on the line of the Panama railroad where the number of American children is too small to justify the establishment of schools. These children are assigned to the most convenient and accessible schools in which are found grades of work suitable to their needs, and are given free transportation on the railroad.

The course of study provides for all the regular grades from the first or primary to the eighth inclusive, and the regular English branches are taught, including reading, writing, arithmetic, grammar, geography, American history, elementary physiology, spelling and elementary drawing. Owing to the irregularity with which pupils enter the schools at any time of the year, grading is rather difficult, and promotions at the usual periods are not feasible, but are made on the satisfactory completion of certain amounts of work, and at such times as the interest of the school may require. Reports from the pupils who have had opportunity while in the States to re-enter their former classes show that the work done in the Zone schools enabled them to keep fully abreast the classes at home. This is an encouraging feature, as it gives assurance that when the pupils return to their homes permanently their school work will not have suffered on account of the temporary residence on the Isthmus.

High school classes have been organized at Cristobal and Culebra. The attendance is limited and classes have not as yet been organized for the complete high-school course. It is intended to perfect this branch of the work, and when there is a demand for it enable pupils to take a full four-years' course. The present provision is for instruction in algebra, physical geography, rhetoric, botany, geology, American civil government, German and Spanish. Children of non-employes are admitted to these classes on application by payment of $4 gold, monthly.

During the year several of the schools have held entertainments for the purpose of raising money with which to purchase books for school libraries. Both teachers and children have taken much pains to prepare the programs which have been given exclusively by the children, and the entertainments have been very successful. It is expected that within a short time school libraries thus secured by the efforts of the pupils will be installed in all the schools for white children.

At the beginning of the year 17 teachers were employed in the schools and the number increased to 23 at the close. With one exception all the teachers are women, the principal at Cristobal being the only male teacher in the white schools. The salaries range from $60 to $110 a month. Corporal punishment was abolished during the year, yet discipline is well maintained.

On January 11 a convention of teachers was called by the superintendent of schools, at which time a teachers' association was formed with Miss Mabel H. Mills, principal of the Ancon school, as president, and Miss Catherine Bailey, secretary. Since that time four conventions have been held at which there were helpful discussions on subjects pertaining to methods of education, discipline, and school management. The result of the work of the association has been manifest throughout the schools in the uniform progress, and the readiness with which pupils transferred from one school to another have found their places in the proper classes. The end of the year was marked by an excursion through the Culebra Cut, with an inspection of the La Boca docks and dumps, and one to Porto Bello.

The school sentiment of the Americans on the Zone has as a whole been excellent. Some of the obstacles in the way of more satisfactory work are the frequent changes of pupils from one school to another, the vacations which remove children from school for a number of weeks, and the idea prevalent among a small percentage of the parents that their stay on the Isthmus is something in the nature of a vacation and that it is not necessary, therefore, to exercise the same energy and industry as would be required at home.

There are 16 schools for colored children located at La Boca, Las Savanas, Paraiso, Culebra, Empire, Las Cascadas, Matachin, Cruces, Gorgona, San Pablo, Tabernilla, Bohio, Gatun, Mt. Hope, Cristobal, and Pleys de Flor. The largest is at Cristobal. Two white woman teachers are employed in these schools and 16 colored teachers, all men, who are on the gold pay roll at $50 a month. These colored teachers are West Indian or native Panamanians and only those of a certain standard are qualified for the appointment. The pupils are of mixed nationalities, including besides the West Indian negroes, Granadians, Trinidadians, St. Lucians, Chinese, and native Panamanians. One of the schools has only two per cent. of English speaking children. Difference in language makes progress slow in the lower grades. The course is graded as in the schools for white children, but as a rule fewer books are used and the lessons are given by the teacher in class. Some of the older boys and girls are well advanced, and the year's work has resulted in a creditable showing. These children are specially interested in drawing, and some very good specimens of their work are on the walls in the schools. One of the chief difficulties in these schools is the maintenance of discipline and order, and the lack of responsibility in the care of books and other property.

Friendly Societies.

All members of the Woodmen of the World who are interested in organizing a camp on the Isthmus please notify Roscoe Rainwater, of the Disbursing Office, Empire. It is hoped that a camp will be organized at Empire very shortly, and the co-operation of all "Choppers" will be appreciated.

The Improved Order of Red Men of Aztec Tribe, No. 4, Pedro Miguel, will hold a public raising of their chiefs on Thursday evening, July 2, 1908, at their hall in Paraiso. Immediately after the raising a mask ball will be given. Dancing will commence at 8 o'clock, and all dancers must be masked. All are invited.

The initial banquet of the Knights of Columbus club of the Canal Zone has been postponed until Saturday night, July 18, owing to the fact that the elections in the Republic of Panama are to be held July 12. All Knights of Columbus on the Isthmus are requested to send their names, council number, and location to the secretary-treasurer, Wm. J. Ergenzinger, Empire.

The various tribes of the Improved Order of Red Men in the "Canal Zone Reservation," will have their public raisings, or installations of tribal chiefs for the six-moon term, beginning with "Buck Moon" (July) of the present Great Sun (year) on the following sleeps (nights) at 8 p. m:

San Blas tribe, No. 2, at wigwam in Cristobal, July 1; Aztec tribe, No. 4, at wigwam in Paraiso, July 2; Cholo tribe, No. 5, at wigwam in Gorgona, July 6; Caribb tribe, No. 7, at wigwam in Las Cascadas, July 8; Cocle tribe, No. 3, at wigwam in Empire, July 10; Incas tribe, No. 6, at wigwam in Gatun, July 11. Panama tribe, No. 8, La Boca, will have its public raising at wigwam of Aztec tribe, Paraiso, on July 25, at 8 p. m. Chiriquie tribe, No. 1, will have a private raising, at wigwam, Culebra, on July 9 at 8 p. m. These raisings will be of a social character, a smoker and other features of hospitality peculiar to the children of the forest being held. The palefaced public is cordially invited to attend the public raisings.

Personal.

Mr. Sydney B. Williamson, Division Engineer at Corozal, returned from the States June 30 on the *Esperanza*.

Rev. Henry B. Bryan, Archdeacon of Panama, left for the States on the *Allianca* June 24, to be gone until the middle of July, when he will return with his family. The services at the Protestant chapel, Ancon, will be in charge of the Rev. George O. Eskins, rector of St. Paul's church, Panama, and Mr. Cahn.

The Christian Endeavor Society of Gorgona has voted a subscription for fireworks for the Palo Seco Fourth of July celebration. Other friends of the colony have donated money, candy and fireworks.

The Sunday school at Gorgona held an entertainment on Wednesday evening, June 24. About 300 people were present, and after the program of songs and recitations had been given refreshments were served.

COMMISSION CLUB HOUSES.

A lunch counter and small kitchen have been added to the equipment at all the Commission club houses. At the lunch counter a light lunch, consisting of sandwiches, pie, coffee, tea, etc., will be served at hours that will not conflict with the hours of meals at the Commission hotels. The kitchens at Gorgona, Empire and Culebra are equipped with hot-water ranges, and that at Cristobal uses steam from the ice plant.

At each club house a room has been fitted up as a barber shop, and all have hot and cold water.

At the Culebra club house a dark room has been built for the use of the Camera club.

CULEBRA.

A handicap pool tournament began Monday evening with the following entries: Callahan, Goree, Wenpe, Goodman, McRaven, Duff, Herring, Stevens, Padgett, Kenney, Holstead, Fleishman, Vogel, Daniels, Rinderle, Bass, Winters, Smith, Hamlin, Miller.

The first five men in the handicap bowling tournament have the following standing:

	Won.	Lost.	Average No. Pins.
Winters	20	7	166
DeMol	22	10	161
Roberts	18	11	158
Rigney	16	10	158
Harrington	14	10	135

During the summer months the library belonging to the Culebra public school will be at the Commission club house, and circulated as usual.

A pool and billiard match, between players from Cristobal and Culebra, was held at Culebra Saturday night, with the following results:

POOL.

Fleishman (Cu.)	100	Stevens (Cu.)	100
Hilleary (Cr.)	92	Fowler (Cr.)	71
White (Cr.)	100	Duff (Cu.)	100
Gamble (Cu.)	95	Cornick (Cr.)	64

BILLIARDS.

Doty (Cu.)	100	Turner (Cr.)	100
White (Cr.)	96	Floyd (Cu.)	98

On Friday, July 3, the monthly smoker will take the form of a patriotic gathering, with speeches and music.

GORGONA.

The Y. M. C. A. at Gorgona celebrated on June 27 the first anniversary of the opening of the Commission club house. A program was given, consisting of songs, club swinging, clog dancing, wrestling, and music by the orchestra. The secretary read a report of the year's work, and statistics in connection with it were shown with the aid of stereopticon views. Medals were presented to the winners of athletic events, and refreshments were served.

The Gorgona tennis club, represented by Mr. Ashton and Mr. Jackson, met the Empire tennis club, represented by Mr. Hall and Mr. Brown, in a match in doubles on the courts of the latter club on June 21. The Gorgona team won in a closely contested game of five sets—6-4, 6-2, 6-3, Empire winning the other two sets—6-2 and 6-1. The game was a snappy one, full of excellent play. This is the second match played, Gorgona having been defeated in the first, and much interest is manifested in the third, to be arranged in the near future, which will decide the series. It is desired by the Empire and Gorgona clubs that other clubs on the Isthmus become interested in the arrangement of tournaments.

CRISTOBAL.

The chess match between teams chosen by B. M. Vifquain and E. K. Turner brought out eighteen players. Mr. Vifquain's team won five tables, against three for Mr. Turner's team, with one draw. The hardest fought games were between Mr. G. M. Wells and Capt. J. H. Cottman. The latter won two out of three games. Wednesday and Saturday nights are special chess nights.

On July 4 the Cristobal club house will keep "open house." Out-of-town visitors are specially invited to make the club house their headquarters. The refreshment counter will be open all day.

During the six days ending June 20 there were 292 games, averaging over 150, rolled on the bowling alleys. The standing of the three-men bowling tournament is as follows:

	Played	Won.	Lost.	Per cent.
M. and S. Benedicts	21	15	6	.714
Carpenters	21	15	6	.714
P. P. R. Shop	21	14	7	.666
Commissary	21	12	9	.571
M. and S. Bachel'rs	24	12	12	.500
P. R. R. Office	24	11	13	.457
Imperials	21	8	13	.380
South Paws	24	9	15	.374
Mt. Hope	21	3	18	.125

The steamship *Theben* sailed from Tacoma, Wash., on June 23 with a cargo of bridge and trestle timber for the Commission.

OFFICIAL CIRCULARS.

Payments from Pay Car in July.

OFFICE OF DISBURSING OFFICER,
Empire, C. Z., June 26, 1908.

CIRCULAR NO. 40.

To All Concerned: Notice is hereby given, that, for the month of July *only*, the regular payments from the pay car, between La Boca "Y" and Mindi will be made one day later, as follows:

The run between La Boca "Y" and Culebra, inclusive, will be made on July 13.

The run between Empire and Gorgona, inclusive, will be made on July 14.

The run between Gorgona and Mindi, inclusive, will be made on July 15.

The usual hours of arrival and departure from different points will be observed.

During August and succeeding months payments will be made as formerly, on the 12th, 13th and 14th of each month.

(Sgd.) EDWARD J. WILLIAMS,
Disbursing Officer.

Approved:
(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Bills Against Employes.

OFFICE OF DISBURSING OFFICER,
Empire, C. Z., June 26, 1905.

CIRCULAR NO. 41.

To All Concerned: All Departments and Divisions must render bills against employes so that they will reach this office not later than the 10th of the month.

All amounts due the Commission from employes for services of whatever nature, for which bills have been rendered and which remained unsettled on the 25th of the month in which rendered, will be deducted from the salary for that month.

(Sgd.) EDWARD J. WILLIAMS,
Disbursing Officer.

Approved:
(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Duties of Superintendent of Public Works.

DEPARTMENT OF CIVIL ADMINISTRATION,
Ancon, C. Z., June 16, 1908.

TO ALL CONCERNED:

The duties of the Superintendent of Public Works are as follows:

(*a*) To supervise and direct the work of inspectors of plumbing in the cities of Panama and Colon and in the Canal Zone.

(*b*) To receive, accept and act upon the applications of property owners in Panama, Colon, and the Canal Zone for the connection of their premises with the water works and sewers.

(*c*) To keep accurate records of water used in the cities of Panama and Colon, to render bill therefor, and to collect all bills so rendered.

(*d*) To keep accurate records of water used by private consumers in the Canal Zone, and report thereon to the Collector of Revenues, who will render bill for the water so used and collect the amounts due from private consumers.

(*e*) To maintain the water and sewer systems and the street paving within the limits of the cities of Panama and Colon. Any work in the nature of new construction in connection with water and sewer systems and paving in those cities will be done by the Division of Municipal Engineering.

(*f*) To supervise and direct the work of inspectors of the water mains and water connections in the Canal Zone, whose duty it is to detect leaks and prevent the waste of water from the public reservoirs.

(*g*) To direct and operate the public markets and slaughter houses in the Canal Zone.

(*h*) To ascertain the needs of the various communities in the Canal Zone and recommend to the Head of the Department of Civil Administration the construction and repair of such roads, trails, bridges, public water and sewer systems, markets, slaughter houses, lights, and other public improvements as may appear necessary or desirable. Such works of public improvement, when authorized by the Head of the Department of Civil Administration and approved by the Chairman, shall be executed by the Department of Construction and Engineering or by contract, as the Chairman may direct, and the cost thereof shall be met from the Canal Zone funds.

(*i*) To perform such other duties as may be imposed upon him from time to time by the Head of the Department of Civil Administration or the Chairman of the Commission.

JO C. S. BLACKBURN,
Head of Department of Civil Administration.

Approved:
GEO. W. GOETHALS,
Chairman.

Shipment of Household Goods.

PANAMA RAILROAD COMPANY,
OFFICE OF THE GENERAL MANAGER,
Colon, R. P., June 27, 1908.

TO ALL AGENTS: Beginning at once shipments of household goods and personal effects forwarded from stations on this line to New York via Panama Railroad Steamship Line must be prepaid, or they will not be accepted for shipment.

Also, you will show full address of consignees on the bill of lading. We have had several cases of shipments to New York where we have been unable to locate consignees. Goods have been placed in storage, and unless claimed within a certain period will be sold by the Government.

H. J. SLIFER,
General Manager.

Personal and Railroad Mail.

PANAMA RAILROAD COMPANY,
OFFICE OF THE GENERAL MANAGER,
Colon, R. P., June 27, 1908.

TO ALL CONCERNED:

The handling of personal mail as railroad mail is strictly forbidden by the rules and regulations of the United States postal authorities. Article 1142 of Postal Rules and Regulations reads as follows:

"A railroad or steamboat company, or other common carrier, may carry letters written or sent by its officers or agents which relate to 'its business only."

Section 1140 reads:

"No person shall transmit by private express or other unlawful means or deliver to any agent of such unlawful express, or deposit, or cause to be deposited at any appointed place for the purpose of transmittal, any letter or packet, and for every such offense the party offending shall be liable to a fine of $50."

Some employes have been forwarding Commissary books by railroad mail. This is not railroad business. All employes are hereby cautioned not to use railroad mail for any other purpose than is outlined in section 1142 of Postal Regulations as quoted above.

H. J. SLIFER,
General Manager.

Misdirected Letters.

Division of Letters,
Ancon, Station A, June 27, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee

Agacio, Hon. Antonio B.
Allen, John D.
Allyn, John C.
Anderson, Mrs. N. B.
Booth, Samuel
Bromley, Mrs. John Z.
Cole, Richard
Conlan, C. P.
Connor, E. L.
Crosley, S. J.
Crouch, W. E.
Cummisky, John P.
Earle, H. E. (3)
Fassett, C. V.
Gamble, N. M
Gellman, M.
Hantleman, Louis
Holbrook, Arthur
Jong, Chenng
Kinuelli, Louis
Le Gall, D. E.
Lent, Charles
Machore, Eleazar
Maher, John
Mason, Alfred C.
Morris, David
Moulton, Miss Nora
Paparelli, Luis
Perry, C. S.
Peterson, John
Robr, Henry
Ruben, O. N.
Sanger, Walter M
Sedden, Miss Mary
Shea, Patrick
Shumway, Frank
Shutt, H. R.
Smith, Marvin W.
Stipp, E. L.
Sullivan, E. G.
Sutherland, Mrs. C. H.
Thompson, C. U.
Walston, W. H.
Williams, G. O.
Windes, N.
Wysong, D. Puston
York, Paul

Rainfall from June 1 to 27, 1908, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Maximum in one day.	Total.
Atlantic Slope.		
Cristobal	2.06	9.72
Brazos Brook	2.76	14.33
Gatun	2.70	11.88
Bohio	2.93	17.64
Tabernilla	3.30	9.95
San Pablo	2.49	9.64
Central Section.		
Bas Obispo	1.45	6.28
Gamboa	1.60	5.82
Empire	2.04	7.39
Camacho Dam	2.38	12.31
Culebra	1.76	8.02
Rio Grande	1.83	10.34
Pacific Slope.		
Pedro Miguel	1.24	6.73
La Boca	1.53	4.92
Ancon	1.44	4.24
Upper Chagres.		
Alhajuela	2.00	10.96

UNCLAIMED PACKAGES.

The following is a list of packages that have been forwarded from New York to Isthmian Canal Commission and Panama railroad employes, and that are waiting to be claimed at the freight house at Colon. Applications of claimants should be made through the freight agent, P. E. Crutchley. The owners of these packages will have to make application for free customs entry in connection with Circular No. 85, or in the alternative, pay duty to the Panama Government customs on the value of the contents of the packages, before delivery can be effected.

	Charges to collect
Way-bill No. 195—J. R. McCann, Culebra, 1 package cement, *ex Advance;* March 25, 1908	$1.00
Way-bill No. 153—H. A. Yierman, Gorgona, 1 package, *ex Finance;* December 26, 1907	1.00
Way-bill No. 203—J. E. Johnson, Culebra or La Boca, 1 box tobacco, *ex Esperanza;* April 13, 1908	1.00
Way-bill No. 153—Manuel Diez, Panama, 1 package, *ex Finance;* December 26, 1907	1.00
Way-bill No. 153—G. H. Beldon, Cristobal, 1 package books, *ex Finance;* December 26, 1907	3.25
Way-bill No. 187—C. G. Letts, Colon, 1 package, *ex Panama;* March 2, 1908	1.00
Way-bill No. 205—H. Moltzen, Colon, 1 package, *ex Advance;* April 20, 1908	1.00
Way-bill No. 223—Bertram Corinaldi, Ancon, 1 box, *ex Esperanza;* June 5, 1908	3.00
Way-bill No. 227—Peter Bailey Thompson, 1 package, *ex Panama;* June 14, 1908	3.00
Way-bill No. 227—Mr. Delevante, Colon, 1 box, *ex Panama;* June 14, 1908	2.00
Way-bill No. 89—J. H. Higgins, Cristobal, 2 cases picture machinery, *ex Colon;* June 29, 1908	3.00
Way-bill No. 189—Isaiah Shirley, Ancon, 1 box drugs; *ex Allianca;* March 9, 1908	1.00
Way-bill No. 219—A. Zeir (or Zein), Colon or Gorgona, 1 box, *ex Allianca;* May 25, 1908	1.00
Way-bill No. 213—A. M. Warner, Las Cascadas, 1 package, *ex Esperanza;* May 19, 1908	1.00
Way-bill No. 205—A. R. Dametrius, Ancon, 1 package, *ex Advance;* April 20, 1908	1.00
Way-bill No. 205—R. B. Smith, Cristobal, 1 package rubber goods, *ex Advance;* April 20, 1908	1.00
Way-bill No. 219—Elliot F. Brown, Gatun, 1 package personal effects, *ex Allianca;* May 25, 1908	1.00
Way-bill No. 201—C. E. Weidman, Cristobal, 1 case hats, *ex Finance;* April 9, 1908	1.00
Way-bill No. 207—Louis Betz, Cristobal, 1 box personal effects, *ex Panama;* April 24, 1908	1.00
Way-bill No. 207—P. G. Baker, Colon, 1 case, *ex Panama;* April 24, 1908	1.00
Way-bill No. 165—Jas. Vaugher (or Vaughn, Culebra, 1 package, *ex Dunottar Castle;* January 15, 1908	1.00
Way-bill No. 225—John Phillips, Ancon, 1 bundle sporting goods, *ex Advance;* June 10, 1908	1.00
Way-bill No. 111—S. G. M., Cristobal, 1 box hardware, *ex Advance;* August 25, 1907	1.00
Way-bill No. 205—H. O. Hostetter, Culebra, 1 case books, *ex Advance;* April 20, 1908	1.00
Way-bill No. 211—Miss Inger Miller, Ancon, 1 box groceries, *ex Finance;* May 5, 1908	1.00
Way-bill No. 146—M. C. Benson, Bas Obispo, 1 crate machine, *ex Advance.* December 9, 1907	3.00
Way-bill No. 223—W. A. Woodward, Porto Bello, 1 crated boat, *ex Esperanza;* June 5, 1908	6.58
Way-bill No. 227—John H. Dunn, Culebra, 1 box seeds, *ex Panama;* June 14, 1908	3.25
Way-bill No. 215—John H. Moriarty, Empire, 1 box household goods, *ex Advance.* May 16, 1908	2.90
Way-bill No. 221—Mrs. Henry Smith, La Boca, 1 package, *ex Finance;* June 2, 1908	1.00
Way-bill No. 227—Benjamin Springer, Gatun, 1 box crockery, *ex Panama;* June 14, 1908	3.00
Way-bill No. 227—Mrs. Dolores Shubert, Panama, 1 box glass, *ex Panama;* June 14, 1908	3.00
Way-bill No. 221—R. M. Smith (or R. Arn-Smith), Ancon, 1 crated trunk, *ex Finance;* June 2, 1908	3.50
No. 7668—C. G. Lester, Colon, 1 parcel, *ex Panama;* June 14, 1908	1.00
No. 7503—Jos. V. Sadler, Pedro Miguel, 1 parcel, *ex Finance;* March 14, 1908	prepaid
No. 7321—J. M. Chumacero, Colon, 1 parcel, *ex Dunottar Castle;* November 24, 1907	prepaid
No. 7232—J. W. Foulks, Colon, 1 parcel, *ex Dunottar Castle;* September 30, 1907	prepaid
No. 7656—S. Chenalloy, Colon, 1 parcel, *ex Advance;* June 10, 1908	prepaid
No. 7622—Frederick White, Cristobal, 1 parcel, *ex Advance;* May 16, 1908	prepaid
No. 7564—Mayer Unterberg, Panama, 1 parcel, *ex Esperanza;* April 13, 1908	prepaid

COMMISSARY PRICES

For week beginning July 1.

FRESH MEATS, POULTRY AND COLD MEATS.

		Price.
Beef—Sirloin roast	per lb	28
Rump roast	per lb	28
Porterhouse	per lb	28
Rib-roast, short cut (not under 3½ pounds)	per lb	20
Rib-roast, second cut	per lb	17
Chuck-roast	per lb	13
Soup	per lb	7
Stew	per lb	12
Corned	per lb	10, 12, 14
Suet	per lb	4
Steaks—Sirloin	per lb	28
Porterhouse	per lb	28
Rump	per lb	28
Round	per lb	20
Veal—Loin	per lb	23
Cutlets	per lb	24
Short-cut chops	per lb	24
Entire forequarters	per lb	11
For stewing	per lb	11
Mutton—Entire forequarters	per lb	9
Short-cut chops	per lb	20
Leg	per lb	18
Lamb—For stewing	per lb	10
Entire forequarters	per lb	10
Chops	per lb	30
Leg	per lb	28
Pork—Cuts	per lb	20
Livers—Beef	per lb	10½
Calf	each	60
Sausage—Pork	per lb	16
Bologna	per lb	15
Frankfurter	per lb	15
Lieberwurst	per lb	15
Sweet bread—Veal	each	1.20
Beef	per lb	25
Tripe, pickled, Honeycomb	per lb	12
Pigs' feet	per lb	11
Ox tongues	each	90
Pigs' tongues (salted)	per lb	15
Chickens, dressed (milk-fed)	each	1.30
Chickens, large	each	1.60
Fowls	each	1.20
Ducks, fatted (fancy)	each	1.20
Squabs	each	45
Suckling pigs	each	4.90
Turkeys	per lb	28
Eggs (fresh)	per dozen	28
Capons	each	2.40
Bacon—Strips	per lb	23
English, breakfast, sliced	per lb	§26
Ham—Sugar-cured, sliced	per lb	§25
One-half, for boiling	per lb	§20
Westphalia	per lb	45
Whole, Ferris	per lb	19
Swift	per lb	18
Family beef	per lb	18
Salt Pork	per lb	13

DAIRY PRODUCTS.

Butter, prints, prime quality	per lb	35
Cheese—Cream, Phila	each	22
Neufchatel	each	6
Roquefort	per lb	45
Young America	per lb	22
Swiss	per lb	33
Gouda	per lb	34
Edam	each	1.05
Camembert	each	28
Pinxter's	per tin	22
McLaren's	per jar	15

FRUITS AND VEGETABLES.

Pineapples	each	15
Oranges	dozen	12
Grape fruit	each	4
Limes	hundred	70
Lemons	dozen	15
Carrots	per lb	4½
Rhubarb	per lb	6
White potatoes	per lb	3
Onions	per lb	4½

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§ Sold only from cold storage and not from Commissaries

NEW ARTICLES.

		Price.
Corn flakes, Quaker, 1s	carton	10
Mushrooms, Amieux, 2s	tin	22
Sideboards, oak	each	20.80
Rugs, grass, 9x12-inch	each	8.00
Brushes, nail	each	20
Bags, sponge, 7x8	each	20
Bags, ice, rubber coated, 9-in. diameter	each	50
Oil, furniture, ½-pint	bottle	20
Ticking, 8-oz	yard	15
Supporters, elastic, No. 3	pair	50
Half hose, white	pair	40
Sacques, dressing, assorted colors	each	60

MOVEMENT OF OCEAN VESSELS.

The following is a list of the sailings of the Panama Railroad Steamship Company, of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON.

Prinz Sigismund	H.-A.	Friday	June 26
Orinoco	R.-M.	Saturday	June 27
Advance	P. R.R.	Monday	June 29
Panama	P. R.R.	Friday	July 3
Prinz Joachim	H.-A.	Saturday	July 4
Allianca	P. R.R.	Wednesday	July 8
Pr. Eitel Friedrich	H.-A.	Friday	July 10
Atrato	R.-M.	Saturday	July 11
Finance	P. R.R.	Monday	July 13
Esperanza	P. R.R.	Saturday	July 18
Pr. Aug. Wilhelm	H.-A.	Saturday	July 18
Colon	P. R.R.	Thursday	July 23
Prinz Sigismund	H.-A.	Friday	July 24
Clyde	R.-M.	Saturday	July 25
Advance	P. R.R.	Tuesday	July 28
Prinz Joachim	H.-A.	Saturday	Aug. 1
Allianca	P. R.R.	Monday	Aug. 3
Finance	P. R.R.	Friday	Aug. 7
Pr. Eitel Friedrich	H.-A.	Friday	Aug. 7
Trent	R.-M.	Saturday	Aug. 8
Panama	P. R.R.	Wednesday	Aug. 12
Pr. Aug. Wilhelm	H.-A.	Saturday	Aug. 15
Advance	P. R.R.	Monday	Aug. 17
Prinz Sigismund	H.-A.	Friday	Aug. 21
Colon	P. R.R.	Saturday	Aug. 22
Tagus	R.-M.	Saturday	Aug. 22
Allianca	P. R.R.	Thursday	Aug. 27
Prinz Joachim	H.-A.	Saturday	Aug. 29

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston enroute to Colon.

FROM COLON TO NEW YORK.

Allianca	P. R.R.	Friday	June 26
Atrato	R.-M.	Tuesday	June 30
Finance	P. R.R.	Wednesday	July 1
Esperanza	P. R.R.	Monday	July 6
Pr. Aug. Wilhelm	H.-A.	Tuesday	July 7
Advance	P. R.R.	Saturday	July 11
Clyde	R.-M.	Tuesday	July 14
Panama	P. R.R.	Thursday	July 16
Allianca	P. R.R.	Tuesday	July 21
Prinz Joachim	H.-A.	Tuesday	July 21
Finance	P. R.R.	Sunday	July 26
Trent	R.-M.	Tuesday	July 28
Esperanza	P. R.R.	Friday	July 31
Pr. Aug. Wilhelm	H.-A.	Tuesday	Aug. 4
Colon	P. R.R.	Wednesday	Aug. 5
Advance	P. R.R.	Monday	Aug. 10
Tagus	R.M.	Tuesday	Aug. 11
Allianca	P. R.R.	Saturday	Aug. 15
Prinz Joachim	H.-A.	Tuesday	Aug. 18
Finance	P. R.R.	Thursday	Aug. 20
Panama	P. R.R.	Tuesday	Aug. 25
Magdalena	R. M.	Tuesday	Aug. 25
Advance	P. R.R.	Sunday	Aug. 30
Pr. Aug. Wilhelm	H.-A.	Tuesday	Sept. 1
Colon	P. R.R.	Friday	Sept. 4
Orinoco	R.-M.	Tuesday	Sept. 8
Allianca	P. R.R.	Wednesday	Sept. 9

FROM NEW ORLEANS TO COLON.

Harry T. Inge	U.F.C.	Saturday	June 27
Ellis	U.F.C.	Saturday	July 4
Preston	U.F.C.	Saturday	July 11
Harry T. Inge	U.F.C.	Saturday	July 18
Ellis	U.F.C.	Saturday	July 25

FROM COLON TO NEW ORLEANS.

Preston	U.F.C.	Tuesday	June 30
Harry T. Inge	U.F.C.	Tuesday	July 7
Ellis	U.F.C.	Tuesday	July 14
Preston	U.F.C.	Tuesday	July 21
Harry T. Inge	U.F.C.	Tuesday	July 28
Ellis	U.F.C.	Tuesday	Aug. 4

FROM COLON TO BARBADOS, CALLING AT TRINIDAD.

Orinoco	R.-M.	Tuesday	July 7
Atrato	R.-M.	Tuesday	July 21
Clyde	R.-M.	Tuesday	Aug. 4
Trent	R.-M.	Tuesday	Aug. 18
Tagus	R.-M.	Tuesday	Sept. 1

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company dispatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cia. Générale Transatlantique) for Venezuelan ports, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Median,* about July 18, and *William Cliff,* about July 27.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, JULY 8, 1908. No. 45.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Changes in Organization.

The Department of Excavation and Dredging was abolished July 1, and the Central division was established. On July 15 the Pacific division will be established. The details of the change are found in Circulars Nos. 183A and 183B, published on another page of this issue of THE CANAL RECORD.

The Canal construction work will be carried on in three divisions:

Atlantic Division—Embracing all territory north of Tabernilla; division engineer, Maj. William L. Sibert; headquarters, Gatun.

Central Division—Embracing all territory north of Pedro Miguel to and including Tabernilla, and including the dump grounds in the Pedro Miguel District; division engineer, Maj. D. D. Gaillard; headquarters, Empire.

Pacific Division—Embracing all territory south of and including Pedro Miguel, except the dump grounds of the Central Division located in this territory; acting division engineer, S. B. Williamson; headquarters, Corozal.

L. K. Rourke, Acting Division Engineer of the Central Division, has issued the following bulletin:

Effective July 1, 1908, the Central Division will be divided into six construction districts:

Pedro Miguel District.—Extending from Panama railroad bridge over the Canal at Paraiso, south to Pedro Miguel locks, Pedro Miguel yards, Miraflores dump and La Boca dump. W. T. Reynolds, Superintendent of Construction; headquarters transferred from La Boca to Pedro Miguel.

Culebra District.—Extending from south end of Culebra "Y" south to Paraiso bridge. Joseph Little, Superintendent of Construction; headquarters, Culebra.

Empire District.—Extending from south end of White House yard to south end of Culebra "Y." D. E. Crowley, Superintendent of Construction; headquarters, Empire.

Bas Obispo District.—Extending from Chagres river to south end of White House yard. J. W. Sneed, Superintendent of Construction; headquarters transferred from Bas Obispo to Las Cascadas.

Gorgona District.—Extending from Mamei south to the Chagres river. W. G. Shea, Superintendent of Construction; headquarters, Gorgona.

Tabernilla District.—Extending from Tabernilla south to Mamei. G. A. Greenslade, Superintendent of Construction; headquarters transferred from Tabernilla to San Pablo.

Superintendents of construction will be held responsible for all construction work in their respective districts.

Under the new organization each superintendent of construction will have direct supervision over not only the work of excavating, but also of transportation and management of the dumps in his district. In the reorganization no new men have been employed, and such vacancies as may occur will be filled by present employes. The office of the old Chagres Division at Gorgona will be used by the district superintendent and the assistant engineer at Gorgona, and the clerical force formerly employed there has been transferred to Empire.

June Excavation.

The grand total of excavation during the month of June was 3,060,307 cubic yards, all of which except 165,316 cubic yards was taken from the Canal prism. This establishes a new record for excavation in the rainy season, being 356,384 cubic yards more than the record for May, and 419,963 cubic yards short of the highest dry season record, that of March, 1908. Compared with June, 1907, it shows an increase of 2,103,015 cubic yards. There were 26 working days in June, as compared with 25 in May. Of the grand total of June excavation 1,828,538 cubic yards were taken out by steam shovels, and 1,229,370 by dredges.

The mean rainfall in June was 10 inches as compared with 14.7 inches in the previous month, and with 12.6 inches in June, 1907. In addition to the decrease in rainfall the work was greatly facilitated by the fact that the tracks in the cuts and on the dumps had been so thoroughly ballasted in May that comparatively little trouble was experienced with them in June.

From the Culebra Division there were removed 1,134,032 cubic yards, all of which except 34,964 were taken from the Canal prism; from Mindi, all within the Canal prism, 32,022 cubic yards were removed; from the Chagres Division, all within the Canal prism, 322,145 cubic yards.

From the Gatun locks and spillway there were taken 244,951 cubic yards, of which 116,998 cubic yards were from the Canal prism; from the Miraflores locks there were taken 68,691 cubic yards, and from the Pedro Miguel lock site, 12,067 cubic yards.

There were taken out by dredges from the La Boca Division 656,621 cubic yards, and from the Colon Division 572,749 cubic yards, all within the Canal prism.

A detailed statement of the June excavation is appended:

Department of Excavation and Dredging.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Culebra Division.	1,099,068	34,964	1,134,032
Mindi..........	32,022	....	32,022
Chagres Division.	322,145	....	322,145
Cardenas Hill....	14,630	....	14,630
Total.........	1,467,865	34,964	1,502,829
Dredges—			
Colon Dredging Division........	572,749	....	572,749
LaBoca Dredging Division........	656,621	....	656,621
Total.........	1,229,370	....	1,229,370
Grand total.....	2,697,235	34,964	2,732,199

Department of Lock and Dam Construction.

Locality.	From Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
Steam shovels—			
Gatun locks......	116,998	26,297	143,295
Gatun spillway...	....	101,656	101,656
Miraflores locks..	68,691	....	68,691
Pedro Migu'l lo'k	12,067	....	12,067
Total.........	197,756	127,953	325,704
Orange Peel Dredge—			
Miraflores locks	....	2,399	2,399
Grand total.....	197,756	130,352	328,108

Total Excavation, Entire Canal

How excavated.	In Canal prism (cubic yards)	From accessory works (cubic yards)	Total excavation (cubic yards)
By steam shovels.	1,665,621	162,917	1,828,538
By dredges.......	1,229,370	....	1,229,370
By orange peel dredge.........	....	2,399	2,399
Total.........	2,894,991	165,316	3,060,307

Figures of monthly excavation are based upon telephone reports from division engineers and are subject to slight alterations when official reports are received.

Division of Building Construction.

The Division of Building Construction during the month of June, 1908, finished the construction of 41 buildings, made repairs to 134 buildings, alterations on 3 and demolished 2 old buildings. The average number of employes at work was 1,606, of which number 370 were "gold" and 1,236 "silver" employes.

THE CULEBRA CUT.

Progress of Work Under American Control.

A profile of the Panama Canal was published by the Isthmian Canal Commission in 1901, showing the original surface of the ground in the center line of the Canal as proposed by the French, and the lowest depth of excavation reached by the French throughout the entire length of the Canal. By simply looking at this profile, without reading the report accompanying it or without walking over the route of the Canal, the majority of men would believe that about all the Americans would have to do to complete the Canal would be to build a few locks and dams and finish up the Culebra Cut. But the fact is that the channel excavated by the French was narrow, and the greater portion so overgrown with vegetation of all kinds that one, riding from Colon to Panama on the Panama railroad, could be lead to believe that the French accomplished very little.

It is not the intention to criticise unfavorably the work done by the French. In fact among engineers and others who have seen what they accomplished, and who realize the great difficulties with which they had to contend in their preliminary work, it is the concensus of opinion that they who were on the Isthmus deserve a great deal of praise. They have made the work easier for those who are completing it. When the Americans took charge on May 4, 1904, the French, with the old excavators, small dump cars, and Belgian engines, were taking out about 33,000 cubic yards per month or about 30 per cent. less than is now being taken out in a single day; but the Americans with the same equipment accomplished no more than the French. Modern equipment in track, rolling stock, and steam shovels, and modern methods of transportation, all brought up to the maximum efficiency a year ago, are responsible for the present progress, and have made it possible to calculate with some degree of accuracy when the Panama Canal will be completed.

The French channel between Colon and the Chagres River near Bas Obispo, and between Pedro Miguel and La Boca, varied in width from 50 to 200 feet, and it is being widened to 500 to 1,000 feet, in addition to the excavating necessary to secure the minimum depth of 45 feet of water. That part of the Canal between the Rio Chagres at Bas Obispo and the Rio Grande at Pedro Miguel, a distance of 9½ miles, known as the Culebra Cut, was the only part on which any work was done by the French after 1889. The accompanying diagram of yardage in the Culebra Cut, together with a typical cross section at the narrowest point, shows the amount of work done by the French, the amount done by the Americans, and the amount yet to be done. About the same comparison will apply to work outside of the Culebra Division.

An estimate was made the latter part of 1906 to find out how much remained to be taken out. It was based on the assumption that the Canal would be excavated to the slope line shown on "Typical Cross Section" as adopted by the Board of Consulting Engineers. With the present method of handling the material—steam shovels and work trains—it is practically impossible to confine the prism to these lines, as the steam shovels make almost a vertical cut, leaving the slopes stepped instead of on a straight line. Then, too, it is necessary to excavate for incline tracks leading from the Cut at different points. Slides also have developed and probably will occur at different places, making it necessary to remove the material until the angle of repose is reached, which in many cases is a much flatter slope than was originally adopted. Thus the estimate of the amount of material yet to be taken out may be increased several million cubic yards depending on the number of inclines that will be built and the number of slides that may develop.

The amount of material in the slides and the cuts for incline tracks that make up a part of the Canal has been and will be estimated as in the Canal prism; and all that which is entirely outside of the Canal proper, such as work for tracks, and diversion channels, has been and will be classed as accessory work, and is not included in the estimates of the number of cubic yards taken from the Canal prism. A great deal of this necessary outside work has been done up to the present time as the monthly reports show. While it is practically impossible to estimate exactly the number of cubic yards still to be taken out to complete the Culebra Cut, yet with the method of cross sectioning, adopted when the Americans commenced work and which will be continued until the Canal is completed, the amount of material removed as measured in place can be determined within a few yards. The steam shovels are compelled to handle a considerable amount of material for which they get no credit in the cross section measurement, such as the material that slides off the cars while being loaded by a preceding shovel, and also the crushed stone used in ballasting the running tracks. There are now about 37 miles of track inside the prism on the Culebra Division, and these tracks are frequently shifted to accommodate the loading and hauling. However, at least one track throughout the Cut, or about nine miles of track, is kept ballasted for handling the loaded trains. This ballast amounts to about 1,000 cubic yards per mile, for handling which no credit is given the shovels.

Monthly cross sections are taken every 50 feet showing the area excavated. These cross sections are accurately plotted on mounted cross section sheets about seven feet in length. The monthly cross sections are shown in different colors with the name of the month printed on each color, so that they serve as correct records. They will not only be valuable as records for the future, in showing the quantity, the place excavated, and date of excavation, but they will show at a glance the progress made from the time the Americans started work. These sheets are filed in fire-proof vaults, and as a further precaution duplicates are being made.

The following was the equipment in use in the Culebra Division June 1, 1908:

Number of steam shovels, 60; number of American locomotives, 149; rebuilt French locomotives, 7.

Cars—Fifty-ton steel flats, 183; Western dumps, 18-yard, 110; Western dumps, 12-yard, 258; Oliver dumps, 12-yard, 132; Western steel car and foundry flats, 40-ton, 300; Lidgerwood flats, 40-ton, 1,267; I. C. C. gondolas, 40-ton, 8; labor cars, 47; work-service cars, 38; camp cars, 6; Goodwin dumps, 30-yard, 14; Ingoldsby dumps, 30-yard, 7. Total cars, 2,370.

Rock Drills—Chicago rock, 18; Kellar air-hammer rock, 21; Ingersoll-Sergeant rock, 87; Rand rock, 41; Sullivan rock, 74.

Channellers—Sullivan, 4; Ingersoll-Rand, 2.

Rock crushers, 2; spreaders, Jordan, 3; McGann, 14; unloaders, 36; track-shifting machines, 5; dredge, clam-shell and orange-peel, 1; wrecking cranes, 20-ton, 2; 25-ton, 2; 75-ton, 1; pile drivers, 10.

On the above date 7,350 men were employed. The dynamite used in May amounted to 552,650 pounds; 351,350 pounds 60 per cent., and 201,300 pounds, 45 per cent.

Work in Culebra Cut.

Plans and estimates are being made in the office of the Resident Engineer at Empire for a suspension bridge across the Canal at that place. The purpose of the bridge is to carry the eight-inch compressed air pipe lines across the Canal, and it may be determined to make it sufficiently strong to accommodate pedestrians and horseback travel. Already it has become expensive to carry pipe lines across the Canal and this expense increases as the Cut deepens. The bridge has not been authorized, and the recommendation will depend entirely upon whether the estimates now being made show that it will be cheaper to go to this expense or continue changing the lines as the work advances.

In the week ended June 27 more work was done on the Tabernilla dumps than during any week since they were started. Three hundred Lidgerwood trains with 96,000 cubic yards of material were unloaded. Four unloaders and two spreaders were used.

The slide at Cucaracha began to show renewed activity in the last week of June. There were no new developments at the Paraiso slide, and the slide at New Culebra is practically cleared up.

Car Measurement of Material.

Owing to the difference between car measurement and cross section estimates of material excavated, the following table will be used in the Central Division as a basis for calculating yardage in the future:

Lidgerwood flats	20 cubic yards
Large Western dumps	17 cubic yards
Small Western and Oliver dumps	10 cubic yards
French dumps	5 cubic yards

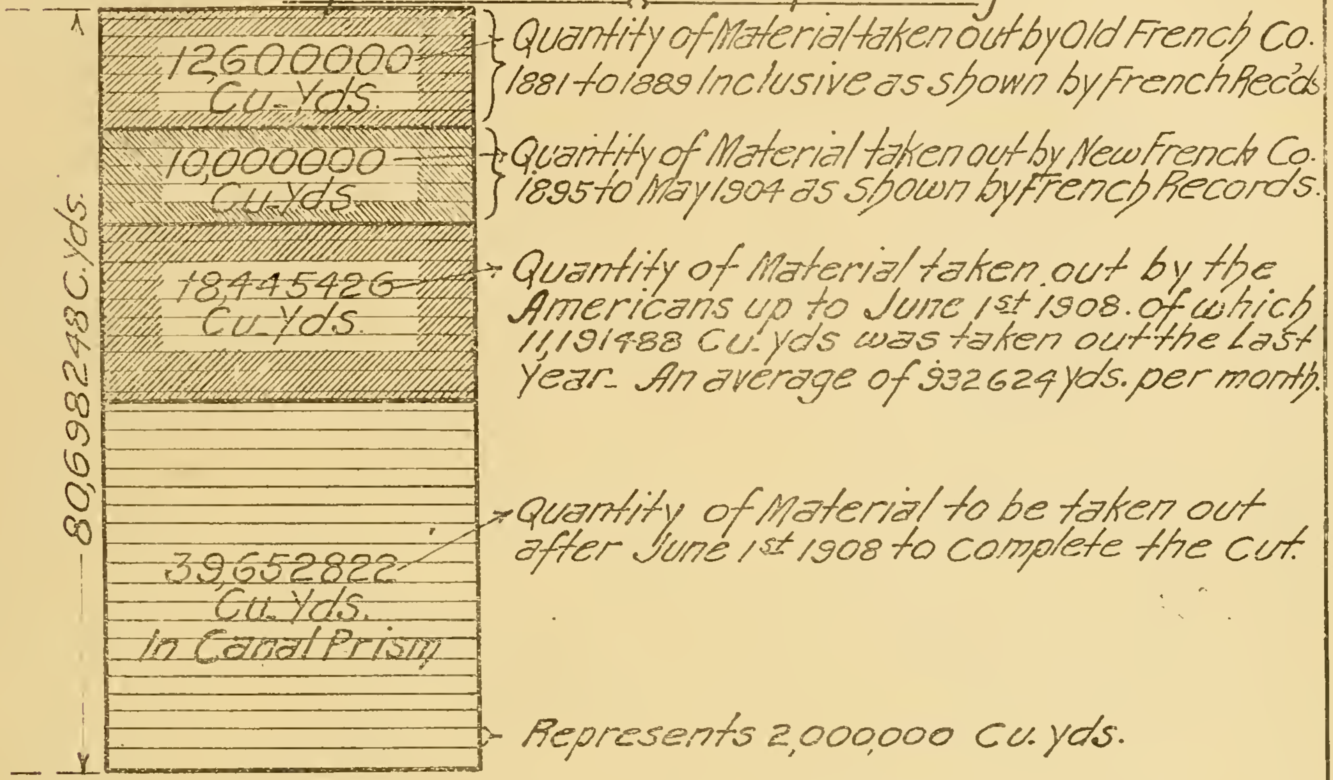
June Rainfall for Three Years.

Station.	1906.	1907.	1908.	Av'ge since station estab'd.	No. of rainy days.
Atlantic Slope					
Cristobal	14.09	16.89	10.53	13.11	23
Brazos Brook	.....	14.81	14.81	14.81	26
Gatun	.....	15.37	13.33	13.05	23
Bohio	11.74	15.16	20.02	12.52	22
Tabernilla	.....	.....	10.41	10.41	20
San Pablo	.....	11.55	9.95	10.75	22
Central Section					
Bas Obispo	.....	8.67	6.55	10,97	23
Gamboa	8.04	9.68	6.15	9.64	21
Empire	6.96	13.24	8.21	8.40	25
Camacho	.....	12.79	12.87	12.83	23
Culebra	8.94	14.90	8.86	9.03	25
Rio Grande	6.64	15.28	11.08	10.77	21
Pacific Slope					
Pedro Miguel	.....	.....	7.71	7.71	26
La Boca	10.48	11.85	4.98	7.88	15
Ancon	8.57	12.64	4.28	8.57	17
Upper Chagres					
Alhajuela	11.38	13.68	11.06	12.34	22

Mean rainfall at eleven stations along the line of Canal where excavation is in progress: In 1908, 10 inches; in same territory in 1907, 12.6 inches, and in 1906, 9.2 inches.

One million and ninety thousand pounds of old French rails were picked up along the line of the Canal during April and May and are stored at Empire. They are held in reserve in case they are needed for reinforcing the concrete in the locks.

Isthmian Canal Commission
CULEBRA DIVISION
From Bas Obispo to Pedro Miguel 9½ Miles.
Graphical Statement of Yardage.



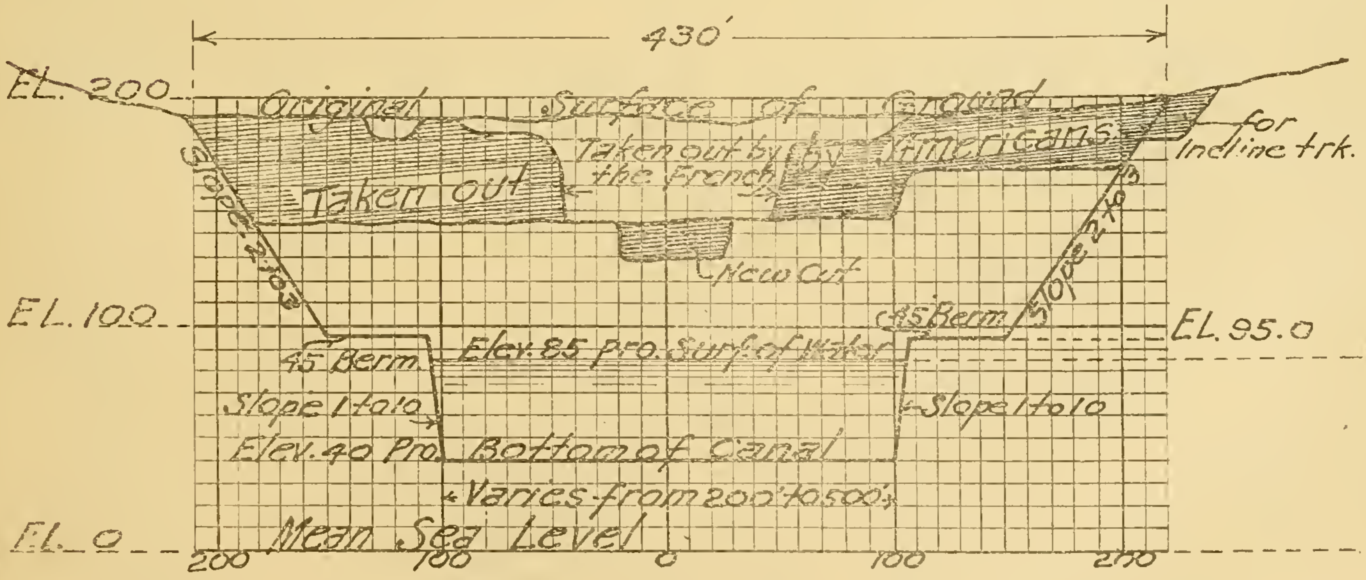
Quantity of Material taken out by Old French Co. 1881 to 1889 Inclusive as shown by French Rec'ds

Quantity of Material taken out by New French Co. 1895 to May 1904 as shown by French Records.

Quantity of Material taken out by the Americans up to June 1st 1908. of which 11,191488 Cu. yds was taken out the Last Year. An average of 932624 yds. per month.

Quantity of Material to be taken out after June 1st 1908 to complete the Cut.

Represents 2,000,000 Cu. yds.


430'
EL. 200
Original Surface of Ground
Taken out by the French
Taken out by Americans
for Incline trk.
Slope 2 to 3
Slope 2 to 3
New Cut
EL. 100
EL. 95.0
45 Berm
45 Berm
Elev. 85 Pro. Surf. of Water
Slope 1 to 10
Slope 1 to 10
Elev. 40 Pro. Bottom of Canal
Varies from 200' to 500'
EL. 0
Mean Sea Level
200
100
0
100
200

TYPICAL CROSS SECTION
Showing widening of Cut by Americans.
Heavy Lines show proposed Cross Section at narrowest part of Cut.

L. K. Rourke
Division Engineer

A. S. Zinn
Res. Engineer
and Asst. to Div. Engr.

RECORD OF EXCAVATION SINCE AMERICAN OCCUPATION.

MONTHLY TOTALS BY CUBIC YARDS, PLACE MEASUREMENT.

BY DREDGES.

COLON.

Mos.	1905*	1906*	1907		1908	
	Outside Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Can'l Prism
Jan.		90,700		111,100	444,403	46,298
Feb.		105,500		110,002	401,887	25,835
Mar.		126,650		84,145	515,223	31,663
April		87,200		69,889	496,366	
May	60,700	64,875		133,847	564,386	
June		73,500	17,000	107,118	572,749	
July	58,050	69,000	104,322	5,600		
Aug.	53,183	54,000	189,170	5,127		
Sep.	48,837	123,540	403,842			
Oct.	48,800	111,020	409,632	5,488		
Nov	38,000	63,260	417,297	5,500		
Dec	92,250	58,400	428,053	14,782		
Totals	399,820	1,027,645	1,969,316	652,598	2,995,014	103,796

Total to July 1, 1908—7,148,189 cubic yards.

* No work done inside of Canal Prism.

LA BOCA.

Mos.	1905*	1906*	1907		1908	
	Outside Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Can'l Prism
Jan.		95,940		94,710	460,250	
Feb.		95,940		93,480	663,519	
Mar.		116,820		92,319	783,281	
Apr		110,700		104,855	676,539	
May		112,340		122,157	530,466	
June	50,676	62,697	64,352	69,223	656,621	
July	41,533	98,400	108,338			
Aug.	54,530	111,930	168,284			
Sep.	114,308	105,780	144,625	9,350		
Oct	81,836	97,170	357,122			
Nov	71,176	92,988	365,423			
Dec	71,094	90,528	349,551			
Totals	485,153	1,191,233	1,557,695	586,094	3,770,676	

Total to July 1, 1908—7,590,851 cubic yards.

* No work done inside of Canal Prism.

Grand total by dredges to July 1, 1908—14,777,465 cubic yards, including 38,425 cubic yards at Gatun dam site in 1907.

BY STEAM SHOVELS.

GATUN.

Locks, Dams and Spillways.

Mos.	1906*	1907		1908	
	From Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan.		47,539		193,567	98,588
Feb.		70,177		176,291	106,506
Mar.		100,151		202,763	171,835
Apr.		103,459		196,109	177,347
May		70,528		138,815	127 932
June		71,181	3,832	116,998	127,953
July		59,537	14,628		
Aug.		78,357	26,866		
Sep.		87,423	36,315		
Oct.	3,055	136,777	40,236		
Nov.	11,517	121,635	40,987		
Dec.	12,056	160,795	69,756		
Totals	26,628	1,107,559	232,620	1,024,543	810 161

Total to July 1, 1908—3,201,511 cubic yards.

* No work done outside of Canal Prism.

PACIFIC DIVISION.

Locks, Dams and Spillways.

Mos.	1908		1909	
	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism
Jan.		7,203		
Feb	385	38,661		
Mar.	5,231	67,963		
Apr.	6,682	92,261		
May	18,417	54,606		
June	2,399	80,758		
July				
Aug.				
Sep.				
Oct.				
Nov				
Dec.				
Totals	33,114	341,452		

Total to July 1, 1908—374,566 cubic yards.

CULEBRA DIVISION.

Mos.	1904	1905	1906	1907	1908
Jan.		70,650	120,990	566,750	1,227,022
Feb.		75,200	168,410	639,112	1,248,265
Mar.		132,840	239,178	815,270	1,290 885
Apr.		126,749	213,177	879,527	1,242,574
May	27,556	75,935	196,209	690,365	960 840
June	32,551	76,905	212,623	624,586	1,117,752
July	31,599	78,570	159,789	770,570	
Aug.	35,056	49,210	244,823	786,866	
Sep.	25,220	44,085	291,452	753,468	
Oct	19,695	52,940	327,009	834,499	
Nov	28,860	60,540	221,642	790,632	
Dec.	42,935	70,630	307,689	1,025,485	
Totals	243,472	914,254	2,702,991	9,177,130	7,087,338

Total to July 1, 1908—20,125,185 cubic yards.

CHAGRES DIVISION.

Mos.	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan.			169,447	
Feb.			200,145	
Mar.			324,233	
Apr.			329,483	
May			235,902	
June			322,145	
July				
Aug.	2,900			
Sept	21,546			
Oct	25,627			
Nov.	44,044			
Dec.	98,652			
Totals	192,769		1,581,355	

Total to July 1, 1908—1,774,124 cubic yards.

COLON DIVISION.

Mos.	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
Jan			62,835	
Feb.			65,632	
Mar.			81,850	
Apr.			67,436	
May.			54,333	
June.			32,022	
July	731			
Aug.	15,257			
Sep.	28,837			
Oct.	41,078			
Nov.	40,003			
Dec.	46,945			
Totals	172,851		364,108	

Total to July 1, 1908—536,959 cubic yards.

Grand total by steam shovels July 1, 1908—26,146,068 cu. yds., including 78,233 cu. yds. excavated at La Boca Locks and Dams in 1907, and 55,490 cu. yds. from Cardenas Hill, in March, April, May, and June, 1908.

Grand total by steam shovels and dredges to June 1, 1908—40,923,533 cubic yards.

FRENCH AND AMERICAN RECORDS.

	FEET
Highest elevation on new center line of Canal before excavation began by the French:	
At Culebra ....312 | At Bas Obispo	233
Greatest depth of excavation by the French:	
On I.C.C. Canal axis: at Culebra, 161; at Bas Obispo	148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-feet level Canal:	
At Culebra—at same point as before	111
At barrier on Contractor's Hill ..about	140
At Bas Obispo	45

	CUBIC YARDS
Total excavation by the French at all points and including diversion channel about	81,548,000
Amount excavated under American control:	
In Culebra Division (Canal prism) to July 1, 1908	20,125,185
Total excavation at all points under American control to July 1, 1908	40,923,533

ISTHMIAN MECHANICAL SHOPS.

Scope of Their Work—Gorgona Shops and Foundry.

The principal shops in the Canal service (not including two marine shops) are located at Gorgona, Empire, Paraiso, and Cristobal. These shops keep in repair the equipment used in building the Canal, furnish parts that can not be bought in the open market, do emergency work that could be done as well and cheaply in the States as on the Isthmus, were it not for the time involved, and finally compete with the shops in the States to the extent of making machines and parts that can be manufactured here more cheaply than they can be laid down at Colon by American shops. Broadly the work is divided into manufacturing and repairing. In the amount of product they are handicapped by being two thousand miles from the base of supplies, and so are thrown every day to some extent on their own resources, and by the fact that the repair work is necessarily irregular and very broad in scope, including practically every kind of instrument and machine from chronometers to steam shovels and locomotives.

In addition to the four main shops each division of the Canal organization has from one to three small field-repair shops for handling minor repairs quickly and in the immediate vicinity of the work. The principal engine houses, at which from 30 to 55 engines are handled daily, are also equipped with small machines for emergency work. The combined pay roll for May, 1908, was $174,708.60.

1.

Gorgona Shops and Foundry.

Gorgona shops, known as Bas Matachin shops up to December 24, 1906, were part of the equipment turned over by the French to the Americans. The plant occupied a narrow strip of three acres along the Chagres River, separated from the Panama railroad by a deep slough, and comprised a machine shop, car shop, foundry, some sheds, and several buildings once used as quarters for mechanics. The floor space in buildings was 36,750 square feet, and the equipment consisted of three 35-horse power engines, each fed from its own boiler, a 10-ton traveling crane, and an entirely inadequate supply of machines and tools. The sheds were filled with old locomotives, cranes, and excavators, and 100 car loads of foundry and machine shop materials were picked up in the buildings and adjoining grounds.

In July, 1904, was begun the work of clearing away the underbrush, disposing of useless machines and material, and putting in operation such machinery as could be utilized. This work was done under all the disabilities of lack of materials, help, and suitable quarters that characterized the early years of the American occupation. From the first, however, the plant did manufacturing and repairing for the various departments, even while the work of erecting buildings, renovating old French machinery, and making tools was in progress. The first important work done was the placing in service of old French locomotives and cars, and for nearly a year this consisted almost entirely of raising the locomotives on their wheels, clearing off the journals, repacking the boxes, and fitting new parts from the plentiful store of repair parts left by the French. During the first year an old French excavator was overhauled and put into service in Culebra Cut where it was used nearly eighteen months until replaced by a steam shovel. R. L. Moore was master mechanic until December 20, 1904, and E. J. Banta acting master mechanic from that time until January 11, 1905, when the present master mechanic, E. C. Cummings, took charge.

In March, 1905, it was decided to rebuild the plant and equip it to do heavy repairing to locomotives and wooden cars, and the general manufacturing for the Zone. The slough between the old grounds and the railroad was filled, several hills in the rear of the shops were cut down, and a planing mill was equipped with French machinery collected from various points along the Canal. The lumber supply was still inadequate, and the present buildings show in many places to what shifts the builders were put. During the rebuilding operations, manufacturing and repairing were carried on without serious interruption. At present the plant covers 21 acres, the locomotive department, and car and foundry department each occupying approximately seven and one-half acres, leaving six acres devoted to general purposes. The yard includes six miles of track, and the floor space of the buildings is 302,069 square feet.

For the first three years it was difficult to get and retain good mechanics, but at present the force is complete and efficient. It consists of white artisans and negro helpers. There are 515 men in the locomotive department, 250 being mechanics and 265 laborers; 496 men in the car and foundry department, of whom 166 are mechanics and 330 laborers, four men in the drafting room, and 27 men in the office of the master mechanic. This is a total of 1,042 and was the force actually at work June 1. The force January 5, 1905, consisted of 160 men.

Drinking water is drawn from the Gorgona supply pipes, passed through a coil in one of the large stationary boilers and thence through a water-cooled coil whence it is piped to drinking fountains in all parts of the plant. At the fountains the water may be drawn warm, or cold after having passed through an ice-coil. In neither case is it exposed to the air from the time it is delivered to the boiler until it falls into the drinking cup. A washhouse with 220 basins is provided for the white employes, and at noon and at 5 o'clock the basins are filled with warm water. Automatically flushed closets for white and negro employes completed the sanitary arrangements.

The general statement that the shops of the Isthmus do all classes of work from the repairing of fine instruments to rebuilding the largest machines is especially applicable to the Gorgona plant. An instrument shop equipped for repairing the most delicate engineering and other instruments of precision keeps three instrument makers and three helpers busy, and does promptly all the work sent to it. Some instances of the promptness and scope of the plant are cited. The dredge *Mindi* broke a friction driver and, eight days after the receipt of the drawings, the casting, seven feet in diameter and weighing 3,200 pounds, was shipped, the whole work of making a pattern and casting and machining the driver having been done in that time. Six wash-drill derricks were turned out in forty hours, the work done including all operations from making patterns to loading the derricks on the cars. Six girders for the three new spans of Barbacoas bridge were assembled, riveted and delivered within eight days after their receipt, and although the job required much overtime work it was handled for about one and one-half cents a pound. A brass rudder shoe for the tug *Cristobal* was ordered at 8 o'clock one morning; the pattern was made, the casting weighing 1,950 pounds was run, and the shoe delivered by 11 o'clock the following morning.

A further idea of the scope and of the amount of work done in the ten months ended April 30, is gained from the fact that part of the material used included 754,912 pounds of bar iron, 793,376 pounds of soft steel, 1,030,859 pounds of steel plate, 441,833 pounds of sheet iron, 145,469 pounds of angle iron, 1,419,897 feet B. M. of yellow pine, 179,716 feet B. M. of oak, and 22,066 linear feet of white pine. In the same period light running repairs were made on 2,601 locomotives, general repairs on 54, and initial repairs and rebuilding on 12 Chiriqui and 6 Belgian locomotives. In the car shop 12,665 cars were repaired in addition to rebuilding and refitting several for special use. Light and heavy repairs were given to 761 Lidgerwood unloaders, 447 spreaders, and 140 track shifters. Five new track shifters were built. In the foundry during this period, 3,394,193 pounds of gray iron castings were made, and 162,473 pounds of brass and bronze castings.

For the ten months mentioned, the pay roll amounted to $776,571.41, and the cost of material used was $501,998.68. About one-third of these amounts is chargeable to manufacturing.

The equipment of the plant is as follows:

Power Plant—Six boilers each of 200-horse power capacity, now being equipped for fuel-oil; two duplex boiler-feed pumps: old French compound engines, 35-horse power each, one for machine shop, one for boiler shop, and one for planing mill; two American 7-horse power engines direct coupled to foundry blowers; one 10-horse power old French engine to operate drop for breaking old castings; one 15-horse power old French engine and boiler on transfer table. Air compressors, two of 1,050 cubic feet free air capacity per minute each; two containing-drums for reservoir supply. Electrical plant, two 100 k. w. generators, direct connected to two compound engines 12 inch and 20 inch by 16 inch stroke, and 13 inch and 20 inch by 16 inch stroke.

Instrument Repair Shop—Grindstones, 2; rivet lathe, 1; jeweler's rivet lathe, 1; drill press, 1, (4-inch French); jeweler's rolls, 1; lathes, 2, (French).

LOCOMOTIVE DEPARTMENT.

Machine Shop—Dimensions, 180 feet by 110 feet. Engine lathes, two 36 inch by 17 feet, two 32 by 14, four 18 by 8; five 18 by 6, one 24 by 10. Turret lathe, brass 3, one 3-inch, one 2-inch, one 1½ inch. Driving wheel lathe, one 69-inch; steel-tire lathe, one 42-inch; double head key lathe, one 16-inch. Planers, one 60-inch by 24 feet, one 42-inch, two 33-inch. Vertical boring and turning mill, one 96-inch, one 51-inch, one 37-inch. Two horizontal boring and drilling machines. Slotters, one 26-inch, one 10-inch. Shapers, one 24-inch, one 20-inch, one 21-inch, French. Keyseater, one No. 3. Wheel presses, one 200 tons, one 100 tons. Mandrel presses, three No. 3½, one No. 5. Milling machine, one plain No. 3. Double dry grinder, one. Combination wet and dry grinder, one. Wet tool grinders, two. Automatic surface grinder, one. Radial drills, one 5-foot, one 4-foot. Drill presses, one 42-inch, one 32-inch, three 31-inch, one 26-inch, two 20-inch, one 14-inch. Bolt cutting machine double head, one 2-inch. Cold metal saw, one. Hack saw, power, one Centering machine, one. Magnetic separator, one. File sharpening machine, one. Triple valve testing machine, one. Belt lacing machine, one. Traveling crane, one 10-ton, old French. Portable cranes, hand, six 1-ton, one 2-ton, one 3-ton. Tram cranes, two 1-ton. Pillar jib crane, one 1-ton. Jib crane, one ½-ton.

Tool Room—Dimensions, 32 feet by 76 feet. Engine lathes, one 12 inches by 5 feet, one 14 inches by 8 feet, one 16 inches by 8 feet. Shaper, one 24-inch. Universal milling machine, one No. 3. Universal grinders, two. Wet tool grinder, one. Automatic saw grinders, two. Twist drill grinder, one. Drill press, one 14-inch.

Erecting Shop and Platform—Dimensions, 120 feet by 475 feet. Portable cylinder boring machine, one. Portable locomotive tire heater, one. Portable boiler test pumps, two. Portable valve-seat planing machine, one. Portable pipe threading machine, one 2-inch. Drill press, one 20-inch. Locomotive drop pit, hydraulic, one.

Boiler Shop—Dimensions, 90 feet by 280 feet. Bending rolls, one 12-foot, one 6-foot hand. One 8-foot splitting shears. One 12-foot flanging clamp. Punch and shear, one No. 4, French, one No. 5, French, two 36-inch, one 24-inch. Horizontal punch, one 8-inch. Metal cold saw, one. Wet and dry grinder, one. Portable flange forge, one. Flange forge, one. Radial drill, one 5-foot. Drill press, one 31-inch, one 26-inch. One-ton cranes, four. Three-ton cranes, four. Double head stay-bolt cutter, one.

Smith Shop—Dimensions, 60 feet by 180 feet. Round single forges, thirteen 42-inch, one 65-inch, four double forges. One 100-pound helve hammer; one 200-pound helve hammer. Steam hammers, one 600-pound, one 2000-pound, one 2700-pound. One bar-iron shear. One double dry grinder. Furnaces, three heating, one annealing, one spring, one large scrap and heating. One pneumatic forging machine. Bolt-heading and forging machines, one 2-inch, one 1-inch. Cranes, one ½-ton, three 1-ton, one 2-ton, one 3-ton. Two steel fan blowers.

Paint Shop—Dimensions, 60 feet by 120 feet; paint grinding machine, one.

Transfer Table Pit—Dimensions, 50 feet by 475 feet; engine and boiler, one 15 horse-power, old French.

Bar-iron Rack—Dimensions, 20 feet by 115 feet.

Authorized and under construction are the following additions to the locomotive department: Engine house, 50 feet by 150 feet. Two tracks with washout pits running the full length of the house; also double cinder pits, 50 feet long with necessary water cranes; coal-crane track and coal storage for the economical hosting and running repair of engines. Sand house, 10 feet by 40 feet. Extension to machine shop, 38 feet by 90 feet. Lye vat shed for cleaning engine parts, 25 feet by 50 feet. Coal bin for blacksmith coal, 200 tons capacity. Extension to boiler shop, 90 feet by 100 feet. Engine house office, 15 feet square.

CAR AND FOUNDRY DEPARTMENT.

Car Shop—Dimensions, 50 feet by 325 feet. Wheel press, one 200-ton. Nut tapper, one 4-spindle. Bolt cutters, three 1½-inch triple head, one 2-inch triple head. Gang drill, one 3-spindle 26-inch. Drill presses, one 20-inch, one 26-inch. Axle lathes, three. Wheel boring machine, one. Pipe threading machine, one 2-inch. Pipe bending machine, one 2-inch. Straightening press, one. Combination wet and dry grinder, one. Yard testing outfit, one. Tram crane, one 1-ton. Jib crane, one ½-ton.

Pattern Shop—With car machine shop the pattern shop occupies a building 30 feet by 325 feet. Universal saw bench, one. Pattern makers' planer, one. Universal wood worker, one. Planer, hand, one. Pattern makers' lathe, one 24-inch. Universal pattern makers' lathe, one 88-inch extra heavy. Speed lathe, one 12-inch. Pattern makers' lathe, French, one 22-inch. Band saw, one. Universal wood trimmers, two. Pattern makers' disc grinder, one. Glue heater, one. Pattern storage house, 40 feet by 60 feet.

Pipe Shop—Dimensions, 20 feet by 50 feet. Furnace for heating journal brasses, one. Pipe threading machines, one 2-inch, one 6-inch, one 10-inch. Pipe bending machine, one 2-inch. Forges, two. Brass, babbiting machine, one.

Tin Shop—Dimensions, 20 feet by 50 feet. Folder and brake, one. Large burr, encased, one. Small burr, encased, one. Small turner, one. Large turner, one. Extra small turner, one. Wiring machine, one. Setting down machines, two. Beading machines, one No. 4, one No. 2. Cornice makers' crimper, one. Groover, one No. 02. Groover, one No. 2. Funnel former, one. Slip roll former, one. Circle shear, one. Squaring shears, one 36-inch, one 52-inch. Lever punch, one. Wire straightener, one. Stakes covering all necessary forms, 16.

Planing Mill—Dimensions, 60 feet by 150 feet. Swing cut-off saw, one 18-inch. Band resawing machine, one. Band saws, two, French. Planer and matcher, one, French. Planer and matcher, one. Dimension planer, one 36 inches by 30 feet. Jointer, one 24-inch. Railway cut-off saw, one. Combination saw bench, one. Car rip saw, one. Car mortiser, one 1½-inch. Mortiser, one ¾-inch. Car borer, one 3-spindle. Planer knife grinders, one 42-inch, one 30-inch, French. Automatic saw grinder, one. Band saw filing machine, one.

Foundry—Dimensions, 70 feet by 161 feet. Positive pressure blowers, two. Cupolas one 42-inch, one 48-inch. Hack saw, power, one. Jib cranes, three 10-ton pneumatic. Platform scale, one 5-ton. Elevator, air, one 3-ton. Sprue cutter, one. Tumblers, two 42-inch, one 24-inch. Double dry grinders, two. Traveling crane, one 1-ton.

Authorized and under construction is a car shed 110 feet by 600 feet, containing five tracks.

The electric light plant on the beach at Colon is being moved and will be consolidated with the one at Cristobal. In the enlarged plant oil will be used in place of coal for fuel.

LETTERS FROM THE LINE.

Commission Hotels

THE CANAL RECORD:

In your issue of the 17th instant appears an extract from a letter in *The Engineering Record* of May 30 last, in which a recent visitor to the Isthmus compliments the P. R. R. Commissary on the service afforded by it to the I. C. C. hotels. Permit me to state that the gentleman is laboring under a very wrong impression, as I can say from experience that the Commissary renders very poor service to the hotels.

In the first place, the prices charged the hotels by the Commissary are exorbitant, by which means the hotels can not be run as economically as they should be.

Again, the goods supplied to the hotels are not the best obtainable. For instance, take bread, a most essential article. That supplied by the Commissary is almost always stale when it reaches the hotels. The Childs Co. of New York would not allow it inside any of their stores. The pie also, which is made by the P. R. R. Commissary is only an excuse for the famous American pie served in our cities in the States.

In the line of meats, beef is the only article the Commissary can at all times supply to the hotels, and the patrons have got so sick of it that they can not bear to see it on the table. Any individual or concern can purchase chickens in any large city in the States in as *large quantities* as desired at 12½ cents per pound, or less. Strange that the only chickens which the Commissary can supply to the hotels are "milk fed" at *$1.50 each*. I can assure you that the men who have to eat at the I. C. C. hotels would not care whether the chickens were fed on "milk" or corn, if they could *get them* fried a la Maryland, boiled or made in an "old fashion" pot pie. I could tell of many other instances of overcharge, etc.

The I. C. C. hotels are finely equipped and have all the latest modern cooking utensils and could put out meals at 30 cents that would please even the most fastidious, were it not that they are severely handicapped by the overcharge for foodstuffs supplied them by the P. R. R. Commissary.

I am informed that the Hamburg-American Line will bring foodstuffs from the States in cold storage for about one cent per pound, and if this be so, one certainly fails to see why the P. R. R. Commissary should charge five cents more per pound for foodstuffs brought down in the holds of their own boats.

Yours respectfully,

W. H. VAN FLEET.

Culebra Hotel, June 23.

More Bad Money.

The Chief of Police calls attention to the fact that a counterfeit American $5 gold piece, coinage of 1905, was passed on a Chinese store at Pedro Miguel on the evening of June 27, by a well dressed negro who immediately afterwards disappeared. This coin, although rather a crude imitation, might easily be circulated. All business men and others are cautioned to scrutinize carefully all $5 gold pieces before accepting or changing them.

The Ancon corral has been fitted with electric lights in order to diminish the fire hazard and to facilitate night work.

OFFICIAL CIRCULARS.

Department of Excavation and Dredging Abolished — Central Division Established.

CIRCULAR NO. 183A.

Effective July 1, 1908, the following modifications are made in the organization of the Department of Construction and Engineering, as prescribed in circular letters from this office, dated April 12, 1907, and August 22, 1907:

The Department of Excavation and Dredging is abolished.

The Central Division, embracing all territory north of Pedro Miguel to and including Tabernilla, in which work of the Construction and Engineering Department is being done (and including the dump grounds operated by this Division south of Pedro Miguel, and designated "Pedro Miguel District"), is hereby created.

Maj. D. D. Gaillard is designated Division Engineer of the Central Division, with headquarters at Empire.

Mr. L. K. Rourke is appointed Assistant Division Engineer of the Central Division.

The head of the LaBoca Construction Division will report to the Chief Engineer direct.

Maj. Edgar Jadwin is appointed Resident Engineer, and will report to the Division Engineer of the Atlantic Division for assignment to duty.

Capt. George M. Hoffman is appointed Assistant Engineer, and will report to the Division Engineer of the Atlantic Division for assignment to duty in connection with the Gatun dam.

All mechanical shops in the Central Division, not operated by the Mechanical Division, will be inspected and reported upon to the Chief Engineer by the Superintendent of Motive Power and Machinery.

(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, June 29, 1908.

Pacific Division Established.

CIRCULAR NO. 183B.

Effective July 15, 1908, the following modifications are made in the organization of the Department of Construction and Engineering, as preseribed in circular letter from this office dated April 12, 1907:

The Pacific Division, embracing all territory from and including Pedro Miguel, south, in which work of the Construction and Engineering Department is being done (except the dump grounds of the Central Division located in this territory and designated "Pedro Miguel District"), is hereby created.

Mr. S. B. Williamson is appointed Acting Division Engineer of the Pacific Division, with headquarters at Corozal.

Mr. W. G. Comber is appointed Resident Engineer for duty in the Pacific Division.

Circulars Nos. 183 and 183A, in so far as they direct the heads of the Pacific Division of Lock and Dam Construction and the La Boca Construction Division to report to the Chief Engineer direct, are hereby amended. They will report to the Acting Division Engineer of the Pacific Division for assignment to duty.

The Marine shops at La Boca will be operated under the Acting Division Engineer of the Pacific Division.

All mechanical shops in the Pacific Division will be inspected and reported upon to the Chief Engineer by the Superintendent of Motive Power and Machinery.

(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, June 3, 1908.

Acting Division Engineer.

CIRCULAR NO. 188.

During the absence in the United States of Maj. D. D. Gaillard, Division Engineer of the Central Division, Mr. L. K. Rourke will act as Division Engineer.

(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, July 3, 1908.

Opportunity to Find Employment.

CIRCULAR NO. 185.

Hereafter gold employes in the service of the Isthmian Canal Commission will not be discharged on account of reduction of force, lack of work, lack of material, or any similar cause, without being given an opportunity to find work in another division, and at least five days' notice will be allowed for that purpose.

(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, July 1, 1908.

Holiday on July 4.

CIRCULAR NO. 187.

Saturday, July 4, 1908, will be observed as a holiday throughout the Canal Zone, and, as far as practicable, all work will be suspended on that day.

(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, July 1, 1908.

Election in Panama.

HEADS OF DEPARTMENTS AND DIVISIONS:

Kindly instruct all employes to remain away from Panama and Colon during the progress of the national elections on Sunday, July 12, and see that no passes or half-rate requests are issued to points beyond Pedro Miguel or Gatun for use on Saturday or Sunday next.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, July 7, 1908.

Memorandum Transfer and Receipts.

ISTHMIAN CANAL COMMISSION,
OFFICE OF THE DISBURSING OFFICER,
Empire, C. Z., July 3, 1908.

CIRCULAR NO. 42.

To All Concerned: Effective July 1, Form D. O. 440a (large) and 440b (small), Memorandum Transfer and Receipt, for services rendered, is provided. A sample of the new form is attached and it is requested that they be used in making transfer and receipts of services rendered, such as corral services, meals furnished, etc. A supply of these forms may be obtained from the Stationer on requisition.

The use of this form should not be confused with transfer invoice and receipt, Form A-172, which should be used for transfer of material only, nor with Form A-161, which is provided to cover charges for labor furnished.

This form should be prepared in triplicate, one copy being retained for the files of the Divisions issuing it, and two forwarded to the Division for which service is rendered, who will retain one copy for file, and forward one receipted to the Disbursing Officer.

When services are rendered by a Department to another Department whose expenses are payable from a different item of appropriation, four copies will be prepared, of which two must be forwarded to the Disbursing Office to support request for transfer of appropriation.

(Sgd.) EDWARD J. WILLIAMS,
Disbursing Officer.

Approved:
(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Misdirected Letters.

Division of Letters,
Ancon, Station A, July 3, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Allan, Thomas S. S.
Allen, Thomas
Anderson, A. C.
Bartley, J. J.
Boivin, Emile
Cespeds, Miss Dora
Day, Daniel A.
Davenport, W. P.
Freedman, Sam D.
Grant, W. S.
Hamilton, Mrs. Alanson
Hindlestone, Chas.
Hoobler, Allison
Hoyle, Henry
Johnson, Gilbert
Johnson, Miss Sophia
Kearney, E. C.
Kent, Thomas L.
Kourany & Bella
Kovalski, G.
Linton, B. F.
McCarney, George
McCormick, E. Bruce
McFee, Walter E.
Moore, Mrs. W. H
Muck, Chas.
Muirhead, J. H. H.
Norton, Fred D.
O'Connor, Harry
Ogilvie, F.
Padden, John
Peek, W. J.
Prescoe, Timothy
Rau, Charles
Ridley, A. G.
Staley, F. S.
Stamatiadis, Demetre
Sterritt, John
Stubner, Mrs. Chas.
Sullivan, Wm. J.
Tabar, W. H.
Taylor, Bruce
Tyng, Chas. F.

LOST—In first-class coach next to locomotive, on train No. 27, which left Colon at 4 p. m. on Sunday, June 21, a pair of spectacles in case. Will finder notify H. Cody, Paraiso.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

A Y. M. C. A. tent has been established at Camp Diablo under the supervision of Mr. Freeman. Magazines, newspapers, library books, small games, athletic equipment, stationery, and a phonograph have been placed at the service of the men of the camp

CRISTOBAL.

The Cristobal Y. M. C. A. celebrated its first anniversary with a stag smoker on Monday, June 29. The program consisted of songs by Mr. George Cornick and Mr. W. H. Christian; sleight-of-hand performance by Mr. W. O. Adams; monologue by Mr. W. H. Christian; broadsword exhibition between Messrs. Flemming and MacSparren, and fencing and broadsword between Mr. MacSparren and Ensign Knox of the cruiser *Prairie*. The German band from the *Prinz August Wilhelm* played throughout the evening. Mr. W. H. Macfarlane was master of ceremonies. The Cristobal association finishes the year with the largest membership on the Isthmus.

A local pool tournament will begin on Wednesday, July 8. Games will be for 50 points, with score by games. Three prizes will be offered. The entrance fee is $1. Several new members are playing a strong game, and promise to give the regulars considerable trouble.

The new refreshment features are proving very popular. The three American staples—pie, sandwiches and coffee—are most in demand. Peaches, strawberries, pineapples, cantaloupes, watermelons, and other cold-storage products are served whenever available.

GORGONA.

The mock convention to be held at the Commission club house at Gorgona, July 14, seems to be a cut-and-dried affair, as the program has been arranged beforehand. Three nominations will be made for president in the regular order, and nine "dark horses" will be sprung. There will be three nominees for vice-president. The various bowling teams will represent different States, and will support their State candidates regardless. An effort will be made by the radical element to nail a strong socialistic plank in the platform, while the conservatives will strive to break the radical combination, and give the race to a "dark horse." It has been decided to give the Woman's Club a hearing on the suffragist and temperance questions. The orchestra and band men will be divided among the various delegations, so that each delegation will be provided with a noise. The entertainment will be free, but cards for admission must be procured beforehand.

A chorus of mixed voices will begin practicing Friday evening, July 10, under the direction of Mr. Jennings of the I. C. C. band.

A Spanish class for men and women will begin its session July 13. Prof. C. W. Ports will be the instructor.

Concert

By the I. C. C. Band at Bas Obispo, C. Z., Sunday, July 12:

PROGRAM.

1	March	*Waldmere*	Losey
2	Selection	*Soul Kiss*	Levi
3	Spanish Waltz	*Senora*	Nathan
4	Mazurka	*Heather Bells*	Losey
5	Morceau characteristic	*Dawn of Love*	Bendix
6	Baritone solo	*The Palms*	Faure
		JOHN E. SPROWLER.	
7	March	*Nibelungen*	Wagner
8	Intermezzo	*Merry Widow*	Lohar
9	Overture	*Orpheus*	Offenbach
10	Descriptive	*Indian War Dance*	Bellstedt
11	Galop	*Crescent*	Rollinson

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Paraiso, C. Z., July 19.

LOST—At or near the Hotel Tivoli, night of July 4, a lady's gold breastpin; enamelled gold knot with diamond centre. Reward if returned to Hotel Tivoli office.

WEATHER CONDITIONS, CANAL ZONE, JUNE, 1908.

Stations.	Press're (reduc'd to mean of 24 hours.)	Temperature.					Mean relative humidity.	Precipitation.			Wind.			
		Mean.	Maximum.	Date.	Minimum.	Date.		Total.	Days with .01 or more.	Average since station estb'd.	Total movement (in miles.)	Prevailing direction.	Max. velocity (in miles.)	Date.
Cristobal	29.86	79	87	1	72	22	91	10.53	23	13.11	4,824	s.e.	26	17
Bas Obispo	29.87	79	90	29	69	20	93	6.55	23	10.97	2,565	n.w.	23	1
Ancon	29.86	80	93	23	70	26	89	4.28	17	8.57	4,506	n.w.	25	27

SOCIAL LIFE OF THE ZONE.

Woman's Clubs—Two Plays by Amateurs. Other Features.

Mrs. Lorin C. Collins, President of the Canal Zone Federation, was the guest of the Ancon Woman's Club the afternoon of July 1. She gave a short talk in which she outlined the organization of an ideal club and urged members to keep up the department and committee work. An exposition of the Federation's plans for the coming year was given and the cooperation of the general departments in the affiliated clubs with the corresponding committees in the Federation was urged. The Federation will take up the study of Panama in the educational department, and the home department has planned a course of study in household economics, including the problems of domestic service, the share of children in home work, beautifying the home, and simplicity in entertaining. A reciprocity committee has been organized to arrange for the exchange of papers and to provide literary programs for the social meetings. The meeting of the Federation will be held at Gorgona early in October. Delegates to the Boston biennial have not yet reported what action has been taken on the application of the Zone Federation for admission to the General Federation. An open discussion followed the talk of Mrs. Collins. Tea was served, Mrs. A. R. Bennett and Mrs. Payne acting as a social committee. The educational department has been invited to meet at the residence of Mrs. Bennett, Cerozal, on July 8. After the regular meeting of the club a conference on the library fund was held.

Plans for the work of the Cristobal Woman's Club for the coming year include a class in the history of music. A class in which the plays of Shakespeare will be studied has been organized by the department of arts and literature. Books of reference have been sent for, to be used in addition to the regular student edition of the plays. The educational department plans to study the history of Panama. A literature class, a series of talks, and a sewing class for young girls are in contemplation.

The Las Cascadas Woman's Club elected the following officers, Thursday, July 2: Mrs. Stoccini president; Mrs. Naylor, first vice-president; Mrs. Decker, second vice-president; Mrs. F. W. Walraven, secretary; Mrs. W. D. Stanton, treasurer. The club will have as guest of honor the president of the Canal Zone Federation at its regular meeting on July 9.

The proceeds from the recent school entertainment at Ancon amounted to over $100, and this money has been added to the library fund.

The Ancon Amusement Association will shortly present a melodrama, "The Noble Outcast." There are eight members in the cast. Specialties will be given between the acts. If the play is well received a tour of the Zone is contemplated.

"Down Our Way," a one act play with the scene laid at Harvard, will be given at the Metropole Theatre, July 18, for the benefit of the Ancon Church. The play was written by Mrs. E. S. Connor, a Boston newspaper woman, who will take one of the parts.

The basket social given by the Daughters of Rebekah at Gorgona last week brought the amount of money in the treasury toward the purchase of paraphernalia up to $175. A charter has been sent for and the club expects to be regularly affiliated with the order in the United States within a short time.

The office force of the old Chagres Division held a farewell dinner at the Hotel Central, in Panama, the night of July 3.

The Kangaroos gave a dance at their club house Friday, July 3, which was largely attended by the members and their wives. Music was furnished by the Gorgona band, and refreshments were served.

PERSONAL.

Commissioner H. H. Rousseau and Mrs. Rousseau left for the States July 6, to be gone eight weeks.

M. B. DePutron, Assistant to the Chairman and Chief Engineer, is in the States on annual leave.

C. A. McIlvaine, Chief Clerk in the office of the Chairman and Chief Engineer, has returned from his vacation in the States.

William Gerig, who resigned as Division Engineer at Cristobal, June 20, left for his home in the States, July 6, accompanied by Mrs. Gerig and their children.

Capt. Charles B. Clark, U. S. A., would be glad to hear from any Tufts College men of the classes 1896-7-8 on the Isthmus; also from any St. Louis Law School men of the class 1904. A letter addressed to Hotel Tivoli will reach Capt. Clark.

Mr. Charles K. Lucas, general foreman shipbuilder at the dry dock, Cristobal, and Miss Dessa V. McDonald, one of the nurses at Colon Hospital, were married in the Union Church, Cristobal, Tuesday evening, June 30. Mr. and Mrs. Lucas sailed on the *Finance* for a six weeks' vacation in the States.

Obituary.

John J. Alexandre died on the dredge *Ancon* in Limon bay on June 26 from acute dilation of the heart. He was born in the United States, was 40 years of age and had lived on the Isthmus 11 months. His wife, Mrs. Mollie Alexandre of Cristobal, survives him.

Fourth of July.

The Fourth of July was observed at Ancon and Cristobal in accordance with the prearranged plans. In both places the attendance was large and each feature of the program was apparently fully enjoyed.

Rainfall, July 1 to 4, 1908, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Maximum in one day.	Total.
Atlantic Slope.		
Cristobal	.48	.82
Brazos Brook	.62	1.62
Gatun	1.04	1.35
Bohio	.44	.99
Tabernilla	.52	.65
San Pablo	.52	.90
Central Section.		
Bas Obispo	.50	.92
Gamboa	.50	1.04
Empire	.82	.98
Camacho Dam	.88	1.94
Culebra	1.07	1.33
Rio Grande	1.04	1.84
Pacific Slope.		
Pedro Miguel	.97	1.01
La Boca	.22	.42
Ancon	28	.44
Upper Chagres.		
Alhajuela	.75	1.83

MOVEMENT OF OCEAN VESSELS.

The following is a list of the sailings of the Panama Railroad Steamship Company, of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON.

Panama	P. R.R.	Friday	July 3
Prinz Joachim	H.-A.	Saturday	July 4
Allianca	P. R.R.	Wednesday	July 8
Pr. Eitel Friedrich	H.-A.	Friday	July 10
Atrato	R.-M.	Saturday	July 11
Finance	P. R.R.	Monday	July 13
Esperanza	P. R.R.	Saturday	July 18
Pr. Aug. Wilhelm	H.-A.	Saturday	July 18
Colon	P. R.R.	Thursday	July 23
Prinz Sigismund	H.-A.	Friday	July 24
Clyde	R.-M.	Saturday	July 25
Advance	P. R.R.	Tuesday	July 28
Prinz Joachim	H.-A.	Saturday	Aug. 1
Allianca	P. R.R.	Monday	Aug. 3
Finance	P. R.R.	Friday	Aug. 7
Pr. Eitel Friedrich	H.-A.	Friday	Aug. 7
Trent	R.-M.	Saturday	Aug. 8
Panama	P. R.R.	Wednesday	Aug. 12
Pr. Aug. Wilhelm	H.-A.	Saturday	Aug. 15
Advance	P. R.R.	Monday	Aug. 17
Prinz Sigismund	H.-A.	Friday	Aug. 21
Colon	P. R.R.	Saturday	Aug. 22
Tagus	R.-M.	Saturday	Aug. 22
Allianca	P. R.R.	Thursday	Aug. 27
Prinz Joachim	H.-A.	Saturday	Aug. 29

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston enroute to Colon.

FROM COLON TO NEW YORK.

Advance	P. R.R.	Saturday	July 11
Clyde	R.-M.	Tuesday	July 14
Panama	P. R.R.	Thursday	July 16
Allianca	P. R.R.	Tuesday	July 21
Prinz Joachim	H.-A.	Tuesday	July 21
Finance	P. R.R.	Sunday	July 26
Trent	R.-M.	Tuesday	July 28
Esperanza	P. R.R.	Friday	July 31
Pr. Aug. Wilhelm	H.-A.	Tuesday	Aug. 4
Colon	P. R.R.	Wednesday	Aug. 5
Advance	P. R.R.	Monday	Aug. 10
Tagus	R.M.	Tuesday	Aug. 11
Allianca	P. R.R.	Saturday	Aug. 15
Prinz Joachim	H.-A.	Tuesday	Aug. 18
Finance	P. R.R.	Thursday	Aug. 20
Panama	P. R.R.	Tuesday	Aug. 25
Magdalena	R. M.	Tuesday	Aug. 25
Advance	P. R.R.	Sunday	Aug. 30
Pr. Aug. Wilhelm	H.-A.	Tuesday	Sept. 1
Colon	P. R.R.	Friday	Sept. 4
Orinoco	R.-M.	Tuesday	Sept. 8
Allianca	P. R.R.	Wednesday	Sept. 9

FROM NEW ORLEANS TO COLON.

Ellis	U.F.C.	Saturday	July 4
Preston	U.F.C.	Saturday	July 11
Harry T. Inge	U.F.C.	Saturday	July 18
Ellis	U.F.C.	Saturday	July 25

FROM COLON TO NEW ORLEANS.

Ellis	U.F.C.	Tuesday	July 14
Preston	U.F.C.	Tuesday	July 21
Harry T. Inge	U.F.C.	Tuesday	July 28
Ellis	U.F.C.	Tuesday	Aug. 4

FROM COLON TO BARBADOS, CALLING AT TRINIDAD.

Atrato	R.-M.	Tuesday	July 21
Clyde	R.-M.	Tuesday	Aug. 4
Trent	R.-M.	Tuesday	Aug. 18
Tagus	R.-M.	Tuesday	Sept. 1

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company dispatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Trans atlantique) for Venezuelan ports, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Median*, about July 19, and *Jamaican*, about July 27.

The steamer *San Jose* arrived at La Boca on July 1 from San Francisco. Recent departures from La Boca were: June 27, *Newport* and *Lansing*, for San Francisco; June 29, *Quito*, for Buenaventura; June 30, *Aysen*, for Valparaiso.

LOST—July 4, between Ancon Athletic Park and Hotel Tivoli, solid gold bracelet, engraved N. M. G. to F. W. P., Xmas, 1905. Return to N. M. Gamble, Cristobal.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, JULY 15, 1908. No. 46.

The Canal Record

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No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Changes in Personnel.

Harry F. Hodges, Lieutenant-Colonel, Corps of Engineers, U. S. A., who has been appointed a member of the Isthmian Canal Commission in place of Jackson Smith, whose resignation takes effect September 15, 1908, arrived at Cristobal July 15. Col. Hodges was born in Massachusetts, February 25, 1860; graduated from the Military Academy at West Point, June 11, 1881, and entered the Corps of Engineers. He was promoted to first lieutenant, February 20, 1883; captain, May 18, 1893; major, May 2, 1901, and lieutenant-colonel, August 27, 1907. In the volunteer service he held the grade of colonel. He was appointed purchasing agent of the Isthmian Canal Commission, with his office in Washington, August 15, 1907.

M. K. Jones, superintendent of transportation in the Central Division, left for his home in the States on July 11. He has resigned his position, and A. Sessions, formerly assistant superintendent of transportation, has been appointed his successor. W. H. Alexander, has been appointed assistant superintendent.

Excavation Record to June 30, 1908.

From the time the Americans took possession of the effects of the French Company on the Isthmus, May 4, 1904, to the end of the fiscal year, June 30, 1908, there were removed from the Canal prism and accessory works, 40,938,575 cubic yards of material. A statement of the excavation for the fiscal years 1905, 1906, 1907 and 1908, including May and June, 1904, follows:

Year.	*Wet.*	*Dry.*	*Prism.*	*Acces'y.*	*Total.*
May & June '04					60,107
1904-05	111,376	741,644	741,644	111,376	853,020
1905-06	1,916,459	1,506,562	1,506,562	1,916,459	3,423,021
1906-07	2,350,213	6,272,839	6,141,985	2,481,067	8,623,052
1907-08	10,399,417	17,579,958	26,307,308	1,672,067	27,979,375
Total					40,938,575

In the fiscal year, 1908, the total excavation was 27,979,375 cubic yards, or about 66 per cent. of the total amount taken out by the Americans. Steam shovels removed 17,457,161 cubic yards, 10,399,417 cubic yards were taken out by dredges, and 122,797 cubic yards by other methods. In the Culebra Cut the steam shovels excavated 12,005,360 cubic yards, and 59,778 cubic yards were taken out by other means. The dredges in the Colon Division took out 5,087,623 cubic yards of material, and those at La Boca, 5,273,369 cubic yards. A statement of the excavation for the fiscal year, 1908, showing the amount of work done on the various parts of the Canal, follows:

	Steam shovels	Other		Total
		Dry	Wet	
Gatun spillway	938,908	....	38,425	977,333
Colon dredging	536,959	....	5,087,623	5,624,582
Chagres	1,766,807	7,317	....	1,774,124
Culebra	12,005,360	59,778	....	12,065,138
Miraflores spillway	....	13,986	....	13,986
Miraflores locks	346,114	....	....	346,114
La Boca locks	38,848	....	....	38,848
La Boca drainage ditch	....	28,055	....	28,055
Gatun locks	1,769,115	....	....	1,769,115
La Boca dredging	55,490	....	5,273,369	5,328,859
Pedro Miguel locks	9,567	3,661	....	13,228
Total	17,467,168	112,797	10,399,417	27,979,382

Miraflores Locks and Dams.

Borings recently completed on the site of the Miraflores locks and dams confirm the results obtained in the investigation of a year ago, showing that a rock foundation for the concrete walls and floors exists at this point. The upper locks and dams will rest on hard limestone, and the lower locks and approaches on argillaceous sandstone.

From the point where the Canal ends, in 45 feet of water in Panama bay, to the lower or south lock at Miraflores is about 8.1 miles, and for this distance the channel will be at sea level. The locks at Miraflores will be in two flights with one pair of locks in each flight, the lower pair being designed to lift from sea level to 25 feet above, and the second pair from 25 feet to 55 feet above sea level.

The preliminary-investigation at Miraflores, upon which the decision to build locks at that point was reached, was expanded into a thorough search of the lock and dam site. In the distance between the end of the upper wing-wall and the end of the lower guide walls of the locks, 4,167 feet, 266 holes were bored. The borings total 18,181.2 feet, of which 9,580 feet are wash drill borings; 8,160.4 feet, diamond drill borings, and 432 feet open test pits extending to the rock surface. These borings were carried into the solid rock to a minimum of 25 feet below the proposed foundation of the walls. There are only three places, limited in extent, where the surface of the rock is slightly below the proposed lock floor. These small pockets will be excavated to the rock and filled in with rubble to the bottom level of the concrete floor, which will be four feet thick.

Excavation for the upper or north lock at Miraflores was begun in January, 1908, and up to July 1, there had been taken from the Canal prism 341,452 cubic yards of material. This work is being done by steam shovels. It is expected that excavation will be begun on the lower or south lock site in August, when the 20-inch suction dredge in process of construction at La Boca will be set at work. The dredge will work up the Rio Grande and will remove the earth to the rock surface, when steam shovels will be used to finish the excavation.

Borings at La Boca.

A series of borings are being made in the Canal prism, south from Miraflores locks to deep water, to determine exactly the kind of material that will be encountered in the dredging operations.

They are being made in three parallel lines, one on the center line and one on each edge of the Canal prism. They are being taken every one hundred feet in distance, and go to a depth of five feet below the bottom of the Canal, or to an elevation of —50 feet. Through soft materials wash borings are made, and when rock is reached diamond drills are used and samples of material taken.

Pedro Miguel Lock Site.

A steam shovel began making a cut June 9, for a track to connect the Miraflores lock and dam site with the lock site at Pedro Miguel. June 22, the shovel was set at work on the lock site at Pedro Miguel, and up to July 1, 9,567 cubic yards of material had been removed. The track is being used by the spoil trains and in hauling supplies from Miraflores to Pedro Miguel lock. Eventually it will be the route for conveying sand and stone for the concrete work at Pedro Miguel.

Additions to Palo Seco Hospital.

The number of patients in the Palo Seco hospital has increased from six to twenty since the hospital was opened, April 10, 1907. In order to accommodate the patients the Division of Building Construction has been directed to erect two 4-room buildings and one building with two rooms and a kitchen. When these buildings are erected the colony will have at its disposal accommodations for from eight to twelve more patients.

Drying Rooms in Bachelor Quarters.

Rooms in which bachelors on the gold roll may keep their clothing dry have been authorized for all type 5, type 16 and type 18 bachelor quarters. These drying rooms will be 9 feet by 12 feet for the types 5 and 16 quarters, and 10 feet by 19 feet for the type 18 quarters. Hooks on the four walls and slats or lines near the ceiling of the room will be provided on which to hang clothing. Work will be begun at once. Type 5 quarters are two-story, eight-room buildings, of which

NOTES OF PROGRESS.

(Continued)

there are fifty-two on the Isthmus. Type 16 is the one-story four-room type of quarters, and of these there are only three. Type 18 is the two-story, twenty-four-room building, and there are thirty-eight of these. In all 93 bachelor quarters, with 860 rooms, will be fitted up with rooms for drying clothing.

Cow Shed at Ancon.

A new cow shed has been authorized for the herd of 35 cows maintained by Ancon hospital. It will be 96 feet long, 60 feet wide, and will contain 68 stalls in two double tiers, each tier divided into two parts by a feeding passage. In addition there will be three box stalls, two calf pens, a bull pen, a feed room, a wash room, and a room and bath for the hostler. The floor will be of concrete, drained with gutters so that it can be flushed out with a hose every day. The walls will be of 2-inch plank to a height of 3 feet 4 inches from the floor, and from there a heavy mesh wire will run to the roof, 10 feet above the floor. This arrangement will aid in ventilation and will keep out bats.

Pedro Miguel Commissary.

A commissary to take the place of the old commissary at Pedro Miguel has been authorized. It will be built on the dump south of and opposite the present passenger station, along the relocated line of the Panama railroad. It will be of the same type as the Culebra commissary; dimensions, 60 by 100 feet.

Gorgona Foundry.

Gorgona foundry made its highest monthly record in June, when 512,591 pounds of iron castings were turned out, at a cost of 2.78 cents a pound, and 25,942 pounds of brass and bronze castings, at 17.79 cents a pound.

Freight at La Boca.

Persons desiring to secure freight at La Boca or East La Boca may bill the same to either point, when it will be delivered through the P. R. R. agent at the commissary plant. No local freight will be delivered at any point other than at the commissary.

Medals Won at Ancon on July 4.

The medals won in the athletic events at the Ancon Fourth of July celebration have been sent to the States to have the name of the winner and the event for which each was given engraved on them. The committee considered that this would add to the interest of the medals as souvenirs. They will be distributed as soon as they are returned from the States.

H. J. Slifer, H. D. Reed, J. G. Holcombe and M. E. Conners, have been appointed a committee to hear the grievances of the property owners of Colon, who claim compensative damages springing from the improvements made in the grading and drainage of Manzanillo island. The committee began its sessions Friday, July 10.

The district court of the Ancon Administrative District, presided over by Judge S. E. Blackburn, was moved last week from La Boca into new quarters arranged for it in an old French building at Ancon near the circuit court building.

ISTHMIAN MECHANICAL SHOPS.

II.

The Plant at Empire—Steam Shovel and Steel Car Repairs.

New buildings equipped with modern machinery run by first-class mechanics make the shops at Empire the equal of any similarly equipped shops in the United States. Up to a year ago the plant at this point consisted of a few buildings, left by the French, equipped largely with old French machinery and capable of doing only light repairs. The new shops are the result of a demand for a plant capable of making the most extensive repairs to steam shovels and steel dump cars, and the energies of the Empire shops are largely devoted to this work. As they were erected while work was being done in the old plant, and have been in operation only a few months, little data is available to give an idea of their capacity. Thirteen new buildings, with 149,631 square feet of floor space, are completed, and an extension to the boiler house, covering 11,200 square feet, is now building. Convenient to the plant a new store house, 100 feet by 300 feet, has been erected for the Department of Material and Supplies. The machinery is so located that material is received at a given point and moves forward from machine to machine, until, when finished, it is at a point convenient for delivery. The buildings are light, well ventilated, and clean. In the yard are 24,000 feet of track, and 4,000 more will be laid.

The plant is organized in two divisions, each under a general foreman. In the first are the machine shop, locomotive and steam shovel repair shop, power plant, air compressors and electric plant, while the car shed, planing mill, and carpenter shops comprise the second division. Of the air compressor and electric plants only enough will be said in this article to show their bearing on the shops proper. Under the direction of the Empire master mechanic, W. O. Johnson, are the engine houses at Las Cascadas and Rio Grande, where light running repairs are made to locomotives, and field-repair stations at Lirio, Bas Obispo, Culebra "Y," and in Culebra Cut. The plant is supplied throughout with water for fire protection, a good sewer system, electric lights, and a complete system of pipes for conveying compressed air at from 90 to 100 pounds pressure. The toilet arrangements consist of two range closets, conveniently located, and a wash room for the "gold" employes with individual wash dishes for 200 men.

In the shops at Empire and the small shops in the Empire district 361 mechanics and 570 helpers were employed June 30, 1908. The pay roll for the fiscal year was $702,311.93. The regular hours of work are from 7 to 11 a. m., and from 1 to 5 p. m. The efficiency of the mechanical force is a trifle lower than that of a similar force in the States, due to the general decrease in effectiveness that results from residence in the tropics. In the helper class Spaniards and West Indian negroes are used, and their efficiency is likewise lower than that of men of the same class in the States.

The cost of manufacture is higher than it would be in the States, on account of the higher average wage and the lower general efficiency; but the cost of a product of the Empire shops is lower than that of a product made in the States and delivered at Colon. In such a comparison it must be remembered that shops in the States are able to specialize, to make up large quantities of one product, and that their supply of material is regular, and the machines and men assigned to one class of work are not interrupted to do other jobs and rush repair orders. As far as the exigencies of the service on the Isthmus will permit the work is being specialized, so that a man may be put on the class of work in which he is most proficient. In the boiler shop the repair of dipper sticks and booms is assigned to three classes of men, each class under a leader to whom the shop foreman looks for results. A similar system is applied in each shop where the amount of work is sufficient to justify it. Jigs and templates have been provided wherever possible, and repair parts are being brought to a standard so that they may be interchangeable. The decrease in cost since this specializing of labor and standardizing of parts was begun has been very marked. In the fiscal year, 1908, material valued at $556,860.20 was used. The total expenditure for material and labor was, therefore, $1,259,172.13.

Repairing steam shovels is the principal work done by the Empire shops, in fact the purpose for which they were constructed. In all 101 shovels, two makes and three sizes of each make, are now in use on the Canal work. To maintain these shovels in good working order it is estimated that each should be brought into the shop about once in from eight to twelve months, according to the nature of the work it is doing. This means that the shop should handle from 10 to 12 shovels each month. At present this is not being done, because the nature of the repairs is so extensive as to amount in many cases practically to rebuilding. When these extensive repairs are completed general repairs can be made on 12 shovels a month. Up to December 1, 1907, running repairs had been made on 509 shovels, the plant at that time not being equipped to do general repairing economically. Since then general repairs have been made on 40 steam shovels; and seven 45-ton shovels, seven new 60-ton and sixteen new 91-ton shovels have been set up.

Since the proper machinery has been available, attention has been given to systematic repairs and to standardizing the parts. For example, the bed plates from the shovels now coming to the shop are removed, swing-circle pivots and bearings are turned to the standard size for each class of shovel, and bushings and friction plates are supplied. In the same way holes for pins for connections to "A" frames are bushed in both the bed plate and frame, and all pins and bushings are made interchangeable for their type of shovel. Future repairs will necessitate only the renewal of pins and bushings and the bed plates will not be disturbed unless they are broken. The circles operating on the bed plates are also bushed. By thus standardizing the parts, repairs can be made quickly and in most cases without taking the shovel to the shops.

The work in rock on the Isthmus subjects the shovels to a degree and constancy of hard usage that is met with in few if in any other places. Weaknesses in the construction of the shovels have been developed by this heavy work. One of these is found in the swing circles, and filler plates and extra braces which are interchangeable are now being applied. Dipper-door hinges and connections to dipper sticks are bushed and made standard for each size of dipper. Shovel 232, on which work was finished a few days ago, was formerly equipped with a steel boom of the usual trussed type. It has been fitted with a new combination boom and dipper stick of steel reinforced with wood filling, and a diffierent style of truss, a cast-steel swing circle, and a 4-yard dipper, especially designed for work in rock. A special throttle valve has been placed on this shovel for the purpose of relieving the main engines without releasing the brakes. A few months ago steam shovel 223, one of the 95-ton type, was pulled out of the slide at Cucaracha a complete wreck. The trucks and propelling gear were not recovered until some weeks later, and then were in such condition as to require complete rebuilding. The car body was badly sprung, and the house, engines, piping, levers, and small machinery required complete overhauling. In fact, the work done was equivalent to building a new shovel, excepting the boiler.

In addition to the steam shovel work running repairs are maintained on 200, 300 and 600-class American engines, and both light and general repairs on small Belgian and American engines left by the French Company. In the fiscal year ended June 30, running repairs were made on 12,149 engines, general repairs on 28, and initial repairs on 14. In the car shop repairs were made on 43,870 cars. Heavy repairs were also handled on wrecking cranes, spreaders, pile drivers and derricks, 100 of these having been repaired during the fiscal year. A large part of the manufacturing account is for running repairs made by the excavating departments at their field shops. This account has grown rapidly. A stock of repair parts for shovels must be maintained, both for shop repairing and for repairs made to shovels while at work. "U" bolts and nuts, jack-nuts, screws, shipper shafts, parts of engines, trucks, dippers, dipper lips, points and other parts are used in large quantities for running repairs. In the six months ended June 30, there were manufactured 1,160 repair parts for cars. Bucyrus steam shovels—163 repair parts for booms; 1,590, car body; 563, dipper; 1,361, dipper handle; 953, engine; 435, hoisting gear; 2,365, propelling gear; 694, swinging circle; 68, thrust cylinder. Marion steam shovels—258 repair parts.

The power plant, dimensions 42 feet by 114 feet, consists of twelve 200-horse power boilers which furnish steam for operating the air compressors, electric plant, planing mill, and steam hammers in the blacksmith shop. At present soft coal is used for fuel, but an oil-burning device is now being installed, with a storage tank of 4,000 barrels capacity. The water used for cooling in the four air compressors is run into a hot well, whence it is pumped by two duplex pumps to the boilers, thus supplying them with heated water. What is not used by the boilers is pumped back into the water main. This plant is operated day and night, seven days a week.

The electric plant, dimensions 86 feet by 35 feet, contains two 100 k. w. generators direct connected to a 160-horse power tandem compound Ball engine, and one 200 k.w. generator and Harrisburg engine. Another 400 k.w. generator and engine will soon be added. Power and light are furnished for the shops at Empire and Paraiso, and current for lighting the streets, quarters, and official buildings at Empire, Culebra, Las Cascadas, and Paraiso, and for the labor camps between the last named points, which are seven miles apart.

The air compressor plant, dimensions 31 feet by 90 feet, contains two Rand and two Laidlaw-Dunn-Gordon compressors, with a capacity of 2,500 cubic feet free air per minute. Similar plants, with batteries of six boilers of 200-horse power each, are located at Las Cascadas and Rio Grande. Crude oil, from 3,000 barrel storage tanks, is used for fuel at these plants. These three compressor plants, with a combined capacity of 30,000 cubic feet of free air per minute, pump into a 10-inch main, leading from Bas Obispo to Pedro Miguel, a distance of nine and one-half miles, and furnish air through 4-inch and 6-inch leads into the Canal prism for various purposes. Connections are also made to coal chutes at Las Cascadas and Pedro Miguel, and to Empire and Paraiso shops for operating pneumatic tools, hoists, etc., in the shops. A 7000-foot 7-inch extension is now being made to the 10-inch main south from Pedro Miguel to Miraflores, to furnish necessary air for lock and dam work at the latter point. The present output of the air compressor plants is 300,000,000 cubic feet of free air per month.

The machine shop, dimensions 80 feet by 224 feet feet, boiler shop 100 feet by 224 feet, and blacksmith shop 80 feet by 224 feet, are parallel to each other with a space of 48 feet between buildings. Directly in front of these buildings is an erecting shed, 80 feet by 362 feet running longitudinally to them. The erecting shed is fed by a 60-foot transfer table reaching 17 tracks on the shop side, and with ample connections on the opposite side to the shop yards, and to storage tracks with a capacity of 12 steam shovels of the largest type. The store house, 100 feet by 300 feet, and with 3,700 square feet of platform storage space, and the master mechanic's office are directly across the transfer table pit from the shop. The planing mill, 70 feet by 225 feet, and car repair shop, 100 feet by 405 feet, are located between the shops previously mentioned and the power plant. Tracks run through and between these shops, allowing the handling of material at the most advantageous points. Between the machine and boiler shops a lye pit, 10 feet by 20 feet by 8 feet, with steam connection is located. By means of a lye bath and air blasts dirty, greasy machinery is quickly cleaned. A part of the space between these shops has been enclosed, and special work, such as the repair of shipper shafts, boom engines and rod work is separated from the general work in the erecting shop. A paint house, racks for plates and iron rods, and storage for coal are also part of the equipment. All the air hose in use on the Isthmus is provided from this plant.

Machine Shop—This shop is equipped with a 10-ton electric crane, and power for operating 54 machines is furnished by two 50-horse power electric motors. The machines in this shop and also in the boiler shop are particularly adapted to the class of work handled at this plant. They are: One 300-ton 78-inch hydrostatic press; one 79-inch wheel lathe, with boring bar attachments and temporary heads for turning; one 12-inch engine lathe, bed length 6 feet; two 16-inch by 6-foot engine lathes; seven 18-inch by 8-foot engine lathes; two 18-inch by 8-foot engine lathes; one 20-inch by 12-foot axle lathe; one 24-inch by 10-foot engine lathe; one 24-inch by 8-foot engine lathe; one 26-inch by 48-inch double spindle lathe, bed length 14 feet; one 36-inch by 22-foot engine lathe; one 30-inch by 10-foot planer; one 48-inch by 16-foot planer; one 15-inch two stroke slotter; two 14-inch brass turret lathes; one 2-inch iron turret lathe; one 3-inch iron turret lathe; two universal milling machines; one hand milling machine; one wet emery grinder; two centering machines; one power hack-saw; one grindstone; one file sharpening machine; one 36-inch vertical boring mill; one 10-foot to 16-foot vertical boring mill capable of taking work from 10 feet to 16 feet in diameter and 6 feet high; one horizontal boring machine; one horizontal drilling and tapping machine; one 5-foot radial drill; one 6-foot radial drill; one 3-spindle drill press; one 18-inch drill press; one 28-inch drill press; one 32-inch drill press (French); two 34-inch drill presses; one 32-inch shaper; one 24-inch shaper; one 12-inch shaper; one 3-inch bolt cutting and nut-tapping machine; two 2-inch bolt cutting and nut-tapping machines; one cold saw. All machines are belt driven from two lines of shafting, one on each side of the shop, each line being driven by a motor.

Boiler Shop—This shop is equipped with a 20-ton electric crane, and power is furnished by two 30-horse power electric motors. There are several jib cranes for handling heavy work, such as dippers, sticks and booms. The machines in this shop are: One 28-inch drill press; one 32-inch drill press (French); one wet emery grinder; one grindstone; one counter sinking radial drill; one cold saw; one flue welder; one 12-foot flanging clamp; one combined punch and shear; one 8-foot rotary splitting shear; one 5-foot bending rolls; one 6-foot bending rolls; one 12-foot bending rolls; one hydraulic beam and angle bending machine (100 tons), (these machines are all belt driven by two lines of shafting, one on each side of the shop, each driven by a motor); one portable riveter, 61-inch reach and 24-inch gap, which, it is expected, will do four times as much work as can be done with the pneumatic riveting tools, and at less cost; one flange fire and one flue fire. An extension to this shop, 100 feet by 224 feet, is under construction.

Tin and Pipe Shops—Under the boiler shop roof, occupying 24 feet 6 inches by 56 feet 6 inches of floor space each, are the tin-shop and the pipe shop. Their equipment consists of: one 6-foot flanging clamp; one 3-foot bending rolls; one combined folder and shears; one folder 3½ feet; three fires; one 1-inch to 6-inch pipe cutter, one 12-inch pipe cutter, and an assortment of small hand tools for tinners' use.

Blacksmith Shop—This shop is equipped with jib cranes. A 30-horse power electric motor furnishes power for the machinery, and drives a 48-inch fan, which supplies air to 21 forges and furnaces. The machines are: One emery wheel; one grindstone; one No. 8 fan, 48 inches; one 100-pound helve hammer; one helve hammer, 300-pound; one 600-pound steam hammer; one 2500-pound steam hammer; one bar cutter; one combined punch and shear (French); one 24-inch gap lathe (French); one 64-inch wheel lathe (French); four large fires and seventeen small fires; each steam hammer served by one 3-ton jib crane; fan and line shaft motor driven. The 64-inch wheel lathe is used especially for straightening axles without taking the wheels off them.

Erecting Shed—This shed contains 17 tracks, 14 of which cross concrete pits. A 20-ton electric crane, capable of handling the heaviest steam shovel and engine parts traverses the entire length of the shop, as does an overhead I-beam trolley with 3-ton air hoists. An old French pump has been fitted up for boiler tests, so that all boilers can be subjected to the severest tests at any time. The machines in this building are: One portable cylinder boring machine, 10 inches to 24 inches by 60 inches; one portable cylinder boring machine, 8 inches to 22 inches by 42 inches; one portable cylinder facing machine, 18 inches to 24 inches: one boiler testing pump (French); one 90-ton hydrostatic press (French); one 20-ton electric crane, and one portable valve setting machine.

Car Repair Shop—This shop contains five tracks running its entire length, and is equipped with traveling cranes and overhead I-beam trolleys. It is arranged particularly for the repair of wood and metal cars. Its proximity to the planing mill and blacksmith shop insures the rapid handling of material. For the metal-car work special air tools and necessary machinery are provided. In this shop are two drill presses and two forges. A considerable portion of the work in this shop is repairing doors to steel dump cars. The work these cars are forced to do is so heavy that the doors will not stand the rough handling to which they are subjected, and old French rails are being used to reinforce them. This repair work is done at one-half the cost that it could be done for in the United States and laid down at Colon, in addition to the advantage of prompt delivery.

Planing Mill—This mill is equipped with overhead I-beam trolleys, and a 180-horse power Buckeye tandem compound engine (12-inch by 21-inch by 16-inch) furnishes power for the machinery. A part of the floor space is partitioned off, and the carpenters and cabinet makers work is thus separated from the mill proper. Ample storage room for rough lumber is provided in the immediate vicinity of the mill. The machinery consists of: One bandsaw; one bandsaw (French); one 36-inch rip saw; one automatic feed ripsaw; one combined rip and resaw; one combined rip and cut-off saw; one single spindle vertical boring machine; one 3-spindle vertical car boring machine; one vertical hollow chisel mortising machine; one car gaining machine; one jointing machine; one 24-inch timber sizer; one old French 24-inch gap lathe, used as wood turning lathe; one 180-horse power tandem compound, 12-inch by 21-inch by 16-inch (Buckeye) engine; one hand power handsaw setting machine; one belt-driven bandsaw filer, and one single punch, 12-inch throat, punch 1¼ hole in 1-inch steel plate.

Tool Rooms—For the care and storage of the tools used in each shop tool rooms are located at convenient points. The main tool room is in the machine shop, and the care and maintenance of all tools is under the direct supervision of the tool-room foreman. A double check is provided on the issue of tools. The kit of each man bears his check number, and he is accountable for all tools furnished him. Tools common to the shop are also numbered so each can be identified, and they must be returned to the tool room at stated intervals or satisfactory explanation given for their retention. A man drawing a tool bearing a certain number can not clear his card by returning a similar tool bearing a different number. He must account for tools actually drawn. The floor space in the tool room is 64 feet 6 inches by 21 feet 10 inches, and the following machinery is provided: One 16-inch by 6-foot engine lathe; one 16-inch by 8-foot engine lathe; one universal milling machine; one double emery grinder; one universal grinder; one twist drill grinder; one cold saw grinder, and one 23-inch drill press. All machines are belt driven from machine shop line shaft.

Misdirected Letters.

Division of Letters.
Ancon, Station A, July 10, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Bell, Florence
Boltnier, J. (pkge)
Borgstrom Mrs. C. (pkge)
Border, C. E.
Bradbury, Jerry
Brown, Miss Grace
Church, S.
Cooke, C. L.
Cooke, Capt. Geo. H.
Coyne, Jno, B.
Curtis, N. S.
Danielson, J. A. (2)
Davis, Mrs. F.
DeHart, S.
Dundon, Richard
Fauntleroy, E. B.
Fisher, Allen
Gelmon, Mrs. Josephine
Gillman, Morris
Glaze, Mrs. H. B.
Goodwin, Mrs. Cathren
Green, G. A.
Heer, Casper
Johnson, J. R.
Joyce, Robert (2d class)
Kenney, C. P.
Kernish, Wm.
Leonard, Miss Verona
Lester, Mrs. Henry
Love, Mrs. Wm. (pkge)
McKelvey, J. F.
Mick, M.
Millimore, William J.
O'Neil, Eugene
Olivia, J. T. (2d class)
Payne, E. W.
Ratchford, John J.
Scott, Fred P.
Stancliffe, H. Trumbull
Stewart, N. G.
Swain, B.
Taylor, John O.
Thayer, Annie
Thompson, C.
Watts, Arthur
Watson, George
Williams, P. A.
Wilson, Will E.
Wright, Mrs. Laval M.
Zapi, Constantino

Articles Left on Trains.

The following articles, found on Panama railroad trains, are held at the Superintendent's office in Colon, awaiting disposition, up to and including June 30, 1908:

One small bank, 8 baskets, 1 bird cage, 1 package blue prints, 2 books, 1 package of books, 1 brush, 14 bundles (miscellaneous articles), 2 cameras, 10 candles, 2 canes, 1 carpet-bag, 2 checks (brass), 1 chest, 1 box chisels, 1 chisel, 12 coats, 1 folding bed, 1 funnel, 1 pair glasses, 2 grips, 1 hammock, 2 handkerchiefs, 16 hats, 1 bundle hides, 1 lamp globe, 1 lantern, 1 lock, keys and hasp; 1 machette, 1 set maps, 1 match-holder, 1 roll matting, 1 package meal tickets, 1 package nails, 1 piece oil cloth, 2 packages paper, 1 picture, 1 ring, 5 sacks (containing miscellaneous articles), 1 saddle, 2 saws, 6 shirts, 1 pair shoes, 1 skirt, 3 pairs slippers, 1 square, 4 suit cases, 2 dozen toilet paper, 2 towels, 3 pairs trousers, 36 umbrellas, 1 violin bow, 1 watch, 2 waybill books, 1 Y. M. C. A. coupon book, and numerous articles of men's and women's clothing.

Concert

By the I. C. C. Band at Paraiso, C. Z., Sunday, July 19, at 2.30 p. m.:

PROGRAM.

1 March............*Under the Double Eagle*..............Wagner
2 Selection..........*The Soul Kiss*............Levi
3 Caprice............*A Shower of Smiles*....Bailey
4 Waltz..............*Pansies for Thought*......Blyn
5 { *a* March..........*Fun in a Barber Shop*...Winne
  { *b* Characteristic...*Corncracker Dance*...Meacham
6 Medley selection...*War Songs of the Boys in Blue*............Laurredeau
7 Descriptive.... ...*The Whistler and His Dog*..............Pryor
8 Overture...........*Orpheus*............Offenbach
9 Patrol.............*Police*.................Merritt
10 March.............*Under One Flag*......Von Blon

CHAS. E. JENNINGS, *Musical Director*.

The next concert will be given at Gorgona, C. Z., July 26.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

REPORT FOR JUNE, 1908.

Total	1,327
Total number of bowling games	4,710
Total number of pool and billiard games	12,656
Average per day	474
Total income from soda fountain	$1,240.18
Number of different men using gymnasium	92
Number of men enrolled in systematic gymnasium class work	57
Total attendance of men using gymnasium	614
Number enrolled in chess and checker clubs	88
Number enrolled in pressing club	32
Number enrolled in orchestras	14
Number enrolled in Bible clubs	12
Number enrolled in Spanish classes	20
Total number of books withdrawn from Library	13,646
Number of Sunday meetings	
Average attendance	31
Number of educational, practical and travel lectures	3
Number of imported entertainments	5
Number of local entertainments	11
Number of functions outside of Association management	9
Number of afternoons for women	26
Number of evening functions to which women were invited	32
Total attendance at building	31,630
Average attendance per day	1,101

The standing of the bowling league follows:

	Played	*Won*	*Lost*	*Percent.*
Empire	12	8	4	.666
Cristobal	12	7	5	.583
Culebra	12	6	6	.500
Gorgona	12	3	9	.250

CRISTOBAL.

The Cristobal Y. M. C. A. has established a recreation tent at the Marine camp at Mount Hope. The tent is equipped with writing tables, correspondence paper, envelopes, etc., a goodly selection of library books for circulation, a Victor phonograph with about fifty records, and something over a ton of good magazines. Committees have been appointed among the Marines to carry out an entertainment program. The program for the first five days was as follows: Thursday, address by Mr. Goodrich; Friday, musical entertainment by the members of the battalion; Saturday, stereopticon lantern entertainment, "A Trip Around the World by Way of the Canals"; Sunday, men's meeting, an address, and a concert by the Canal Zone Band; Monday, 2 p. m., athletic meet, competition by companies.

The final standing in the three-man bowling tournament is as follows:

	Won	*Lost*	*Pinfall*	*Percent.*
P. R. R. Shops	17	7	12,071	.708
Carpenters	16	8	12,031	.666
Benedicts	15	9	11,132	.625
Imperials	14	11	9,932	.542
Bachelors	12	12	11,241	.500
Commissary	12	12	9,865	.500
P. R. R. Offices	11	13	11,239	.458
South Paws	9	15	10,662	.375
Mt. Hope	3	21	10,162	.125

Mr. Bordelson won the medal for highest score in one game, scoring 238 points; Mr. Whitley, the highest score for three games in one evening, with 629 points; Mr. Barte, the highest average for the tournament, with 174 13-24 points. The players on the winning team were Whitley, Wolf and Cleary.

Geo. A. Barte recently rolled a remarkably high game on the Cristobal alleys, making a score of 278 pins. He had 2 spares, 9 strikes, and 9 pins on the last ball. This score has been beaten only once on Y. M. C. A. bowling alleys on the Isthmus, when Fred Robertson, an I. C. C. carpenter at Cristobal, made 279 pins.

GORGONA.

The local bowling league standing is as follows:

Team leaders—	*Pinfall*
Hayes	6,304
LaRose	6,252
Sprecken	6,091
MacConnaughy	6,062
Lasker	6,056
Varen Kamp	6,017
Collins	6,007
Chelf	5,158
McCormack	5,097

The individual standing is: Lasker, 171.4; LaRose, 166.2; Chelf, 163.1; Hinckley, 161.4.

Fred. Varen Kamp made a new alley record last week, with 257 points.

In a match between the ladies and the boys the former won by a score of 605 to 580. The younger boys defeated the girls in two games—349 to 291 and 348 to 322.

Plans are being made for a local basketball tournament, comprising three teams, each team to play every other team a series of three games.

The pool tournament was decided last week, when Christ was defeated by Lasker by a score of 48-50. First place was won by Drexel, with 11 games won and 1 lost; Christ, 10 won, 2 lost; Lasker, 9 won, 3 lost.

EMPIRE.

Empire won three straight games from Cristobal at bowling Saturday night, July 11, by the following scores: Empire, 876-902-844; Cristobal, 742-803-779.

PERFORMANCE OF STEAM SHOVELS.

Monthly Records in the Seven Divisions.*

The subjoined tables show the monthly records of steam shovel work in the seven Divisions of Canal Excavation since American occupation.

CULEBRA.

Period.	Average number of steam shovels at work.	Number of working days in month.	Output per shovel CUBIC YARDS		Rainfall—Inches.		Maximum temperature in sun at Empire (degrees Fahrenheit).
			Per day.	Per month.	Empire.	Culebra.	
1906—							
January	12.83	26	363	9,430	1.28	1.19	.....
February	12.48	23	587	13,494	0.57	0.64	......
March	12.37	27	716	19,335	0.45	1.34	......
April	12.33	24	720	17,289	11.42	8.43	......
May	12.41	27	581	15,684	7.54	7.25	......
June	14.81	26	539	14,026	6.92	8.94	123
July	16.64	25	378	9,441	14.61	20.26	127
August	16.93	27	536	14,461	11.84	12.97	132
September	21.33	24	568	13,664	7.41	6.22	130
October	22.67	27	532	14,373	3.97	8.46	128
November	20.46	24	459	10,833	21.05	19.19	120
December	22.68	25	491	12,267	8.15	9.09	108
1907—							
January	31.04	26	702	18,248	0.08	0.00	104
February	39.87	23	674	15,966	0.13	0.49	108
March	43.88	25	741	18,530	0.16	0.08	105
April	44.12	26	765	19,884	0.09	0.04	110
May	31.70	26	833	21,674	6.22	7.45	118
June	38.28	25	651	16,266	13.53	14.74	118
July	43.38	26	680	17,670	9.85	9.42	118
August	39.70	27	729	19,680	11.28	11.81	120
September	38.50	24	811	19,468	10.86	11.38	123
October	37.63	27	813	21,963	15.44	15.27	123
November	41.88	24	784	18,818	10.40	6.91	123
December	42.72	25	965	24,113	1.47	2.30	124
1908—							
January	43.42	26	1,084	28,177	0.75	0 91	125
February	43.67	24	1,186	28,475	0.00	0.01	124
March	42.19	26	1,171	30,451	0.41	0.13	125
April	41.28	25	1,202	30,031	1.36	1.67	127
May	41.56	25	918	22,948	12.91	12 63	129
June	42 92	26	1,011	26,281	8.21	8 76	126

GATUN LOCKS.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
Aug	3.70	27	784	21,176	16.37
Sept	4.12	24	884	21,219	8.03
Oct	5.00	27	1,013	27,355	19.27
Nov	5.00	24	1,014	24,327	14.27
Dec	5.00	25	1,286	32,159	5 53
1908—					
Jan	5.72	26	1,302	33,840	3.18
Feb	6.01	24	1,222	29,333	1 29
Mar	7.00	26	1,206	31,366	2 81
Apr	7 00	25	1,288	32,210	1.47
May	5.76	25	1,156	28,891	17 30
June	4.88	26	1,129	29,364	13.33

GATUN SPILLWAY.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
July	1.33	26	423	10,998	11.12
Aug.	2 00	27	498	13,433	16.37
Sept	2 00	24	757	18,158	8.03
Oct	2 00	27	745	20,118	19.27
Nov	2.00	24	854	20,494	14,27
Dec	2 00	25	1,395	34,878	5.53
1908—					
Jan	3.00	26	1,264	32,863	3 18
Feb	3.75	24	1,183	28,402	1 29
Mar	4.54	26	1,311	34,149	2.81
Apr	5 00	25	1,184	29,598	1.47
May	4.42	25	908	22,701	17 30
June	3 50	26	1,117	29,045	1.333

MIRAFLORES LOCKS.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1908—					
Mar	3.5	26	746	19,418	0 00
Apr	4.5	25	820	20,502	0.76
May	5.75	25	487	12,174	8.65
June	3.80	26	695	18,077	4.98

CHAGRES.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
Aug	0.15	27	716	19,333	12 20
Sept	0.92	24	976	23,420	14 71
Oct	2.22	27	428	11,544	13.62
Nov	3.00	24	612	14,681	9 85
Dec	6.12	25	630	15,756	2 26
1908—					
Jan	8 11	26	797	20 720	0 20
Feb	10.33	24	798	19,144	0 11
Mar	11.47	26	1,082	28,094	0 41
Apr.	11.76	25	1,121	28,018	1 81
May	11 68	25	808	20,197	13.18
June	12.23	26	1,013	26,341	6.55

COLON.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1907—					
July	1	13	56	731	11.12
Aug.	2	27	283	7,629	16.37
Sept.	2	24	601	14,419	8,03
Oct.	2	27	761	20,539	19 27
Nov.	2	24	833	20,002	14.27
Dec.	2	25	939	23,473	5 53
1908—					
Jan.	2	26	1,208	31,418	3.18
Feb.	2	24	1,368	32,816	1 29
Mar.	2	26	1,574	40,925	2.81
Apr.	2	25	1,349	33,718	1.47
May	2	25	1,087	27,167	17 30
June	1 8	26	684	17,790	13.33

LA BOCA DIVISION.

Period	Average number of shovels at work.	Number of work'g days in month.	Output per shovel (cu. yds.) per day	Output per shovel (cu. yds.) per mo.	Rainfall (inches)
1908—					
Mar.	1	26	476	12,360	0.00
Apr.	1	25	452	11,300	0 76
May	1	25	688	17,200	8 65
June	1	26	562	14,630	4 97

The grand total of all Divisions for the month of June, 1908, is:

Average number of shovels at work, 70.63.

Average output per shovel per day, 991 cubic yards.

Average output per shovel per month, 25,768 cubic yards.

The working day for steam shovels is eight hours.

Highest Output for June.

High records by steam shovels for the 26 working days in June were made as follows:

CULEBRA DIVISION.

BAS OBISPO DISTRICT.

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
212	1,848	35,120	36,968
215	7,170	28,682	35,852

EMPIRE DISTRICT.

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
216	13,943	25,893	39,836
225	10,968	25,592	36,560

CULEBRA DISTRICT.

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
213	....	46,359	46,359
222	....	40,692	40,692

PEDRO MIGUEL DISTRICT.

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
224	24,600	6,539	31,139
264	12,953	14,606	27,559

OBISPO DIVERSION.

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
121	19,351	2,233	21,584

CHAGRES DIVISION.

MATACHIN.

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
256	13,195	22,318	35,513
108	30,127	....	30,127

SANTA CRUZ.

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
156	20,105	....	20,105

SAN PABLO.

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
115	9,329	21,767	31,096
254	3,954	26,470	30,425

CAIMITO.

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
59	18,727	4,682	23,409
114	9,521	20,232	29,753

COLON DREDGING DIVISION.

MINDI

No. of Shovel.	Earth. CU. YDS.	Rock. CU. YDS.	Total. CU. YDS.
103	....	21,498	21,498
133	3,603	6,921	10,524

Steam shovel No. 157, operated by the La Boca Dredging Division at Cardenas Hill, removed a total of 14,630 cubic yards of earth during the month.

Highest Daily Record for June.

CULEBRA DIVISION.

Shovel No.	Date		Location	Amount of material mov'd (cubic yards)	Kind of material
116	June	26	Empire	1,260	earth
207	June	13	Empire	2,428	rock
226	June	12	Empire	2,300	rock
121	June	5	Bas Obispo	1,836	earth
212	June	16	Bas Obispo	3,056	rock and earth
215	June	5	Bas Obispo	2,742	earth
111	June	23	Pedro Miguel	1,280	earth
209	June	15	Pedro Miguel	1,980	rock and earth
224	June	10	Pedro Miguel	1,920	earth
213	June	11	Culebra	2,456	rock and earth
222	June	17	Culebra	2,604	rockand earth
152	June	16	Culebra	1,524	soft rock
105	June	10	Culebra	1,260	earth

CHAGRES DIVISION.

Shovel No.	Date		Location	Amount of material mov'd (cubic yards)	Kind of material
114	June	19	Caimito	1,944	earth and rock
255	June	22	Matachin	2,280	earth and rock
59	June	17	Caimito	1,776	earth and rock
156	June	17	Santa Cruz	1,584	earth

COLON DREDGING DIVISION.

Shovel No.	Date		Location	Amount of material mov'd (cubic yards)	Kind of material
103	June	6	Mindi	1,586	clay and rock
133	June	3	Mindi	1,694	clay and rock

Note.—Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dippers of a capacity of 5 cubic yards. Shovels in the fifty class are 45-ton shovels with dippers of a capacity of 1¾ cubic yards. These shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

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* In June work was begun on the excavation for a lock at Pedro Miguel, and 9,567 cubic yards of material were taken out in that month.

SOCIAL LIFE OF THE ZONE.

Secret Orders, Friendly Societies and Social Clubs.

In the paragraphs that follow not every secret order, friendly society or social club in the Canal Zone is mentioned. Only enough of them are noticed by name to give an idea of the growth of this feature of social life on the Isthmus, since the beginning of the American occupation in 1904.

At the request of members of fraternal organizations who had come to Panama from the United States, the Commission, on November 16, 1906, approved a suggestion that the church buildings already authorized be so built as to serve for church purposes on the ground floor and for lodge meetings on the second story. Accordingly "type church and lodge room" buildings were erected at Cristobal, Gorgona, Paraiso, and Culebra. In process of construction is one at Empire, and one has been authorized for Las Cascadas. These buildings are 70 feet by 36 feet, two stories high, frame construction. The second floor, which is devoted to lodge purposes, consists of a lodge room 60 by 36 feet, with three platforms, two retiring rooms, one 18 by 10 feet and the other 18 by 20 feet, and toilet rooms. Organizations that do not use the lodge rooms may meet in the Commission club houses.

The longest established of the secret society lodges on the Isthmus is the Sojourners Lodge, F. and A. M., Colon, which was organized in February, 1898. Masonic lodges and clubs have since been organized, at Culebra and Las Cascadas in 1907; in 1908 at Empire and Paraiso. Organizations of Masons have also been formed at Pedro Miguel, Bas Obispo, and Gorgona. A movement is now on foot to institute a chapter of the woman's auxiliary, the Order of the Eastern Star.

In the Canal Zone proper the pioneer of the friendly societies is the Improved Order of Red Men, which instituted its first tribe, Chiriqui, at Culebra, January 3, 1906. Since then tribes have been organized at Cristobal, Empire, Pedro Miguel, Gorgona, Gatun, and Las Cascadas. Alfaretta Council No 1, Daughters of Pocahontas, the woman's auxiliary to the Red Men, was organized at Culebra, February 26, 1906, and Osceola Council No. 2, was instituted at Cristobal in May, 1908.

The Knights of Pythias have six lodges on the Isthmus, Panama Lodge No 1, Cristobal, instituted August 11, 1906, was the first lodge. It has 100 members, and in connection with Cristobal lodge of Odd Fellows, has recently ordered a piano for use in the lodge room. A company of the Uniformed Rank is being organized at Cristobal. The lodge at Empire has 135 members, and at Culebra, 85 members. There are lodges also at Las Cascadas, Gatun and Paraiso.

Three lodges of the Independent Order of Odd Fellows have an encouraging membership. They are located at Gorgona, Cristobal, and Culebra. The woman's auxiliary, the Daughters of Rebekah, has been organized at Gorgona since November, 1907.

The Independent Order of Kangaroos is strictly a local, or Canal order, the name being taken from an Australian society of several decades ago. Its motto is: "He is best who does best." It is the outgrowth of a club that was formed in the early days of the American occupation to hold mock sessions of a court, the meeting place being a box car. In 1907, it was organized under the laws of the State of Tennessee, and the mother court was founded at Empire. It now has about 1,500 members. The organization consists of the supreme court at Empire and subordinate courts at Tabernilla, Gorgona, Las Cascadas and Paraiso. The objects of the organization are benevolent, protective and social. A number of death benefits have been paid, and the order is active in aiding its members and their families. An energetic social campaign is kept up, and Kangaroo dances are a feature of the social life.

Other friendly societies that are represented in the Zone by clubs are the Knights of Columbus, Woodmen of the World, Fraternal Order of Eagles, Gugu Bahay, Haymakers, and the Benevolent Protective Order of Elks. The Army and Navy Union has a garrison, with members in all parts of the Zone.

A large number of purely social clubs have been organized at various points on the Zone. Prominent among them is the Tivoli Club, organized in 1907, with a membership of about 150. It gives dances twice a month at the Hotel Tivoli in Ancon. The Ancon Amusement Association tells its purpose in its name. It has given several entertainments and an excursion to the Pearl Islands. The Pan-Hellenic Society of the Canal Zone is composed of members of Greek letter fraternities of American colleges. Among the fraternities represented in its membership are: Kappa Alpha, Beta Theta Pi, Sigma Chi, Phi Beta Theta, Phi Gamma Delta, Psi Upsilon, Delta Psi, Delta Tau Delta, Alpha Tau Omega, Sigma Nu, Kappa Sigma, Theta Delta Chi, Sigma Alpha Epsilon, Delta Kappa Epsilon, Phi Beta Pi, and Phi Beta Kappa. A member of any fraternity listed in Baird's Manual is eligible for membership. The society meets for dinner about once in the month, usually in Ancon, and has given two cotillions. C. L. Bryan, of Culebra, is the president.

The Burns Social Club of Gorgona, American Social Club of Las Cascadas, the Bas Obispo Social Club, the Fortnightly Dancing Club of Gatun, the Social and Recreative Club and Pedro Miguel Social Club of Paraiso, and the University Club in Panama are also factors in the social life of the Canal Zone.

The Canal Zone Federation of Women's Clubs, has clubs in Ancon, Pedro Miguel, Paraiso, Culebra, Empire, Las Cascadas, Gorgona, Gatun, and Cristobal.

The Woman's Clubs.

The members of the Gorgona Woman's Club were entertained Thursday afternoon, July 9, at the home of Mrs. Otis. Luncheon was served on the balcony, which was decorated with palms, flags and chinese lanterns.

At the meeting of the Las Cascadas Woman's Club, July 9, the newly appointed president, Mrs. T. F. Stocchini, tendered her resignation and Mrs. O. G. Randall, first president and organizer of the club, was unanimously elected to succeed her. Mrs. C. R. Lingo was elected permanent chairman of the entertainment committee, with Mrs. T. F. Stocchini, Mrs. W. D. Stanton, Mrs. F. W. Walraven and Mrs. T. W. Williamson, assistants. Mrs. W. M. Bowers and Mrs. W. B. Green were appointed a visiting committee. A vote of thanks was tendered to the retiring officers, and the meeting closed with an address by the president on club effort, which outlined the future work.

The educational department of the Culebra Woman's Club will study Mexico during the coming year. There will be 16 meetings during the year, the lessons to be in charge of different members of the class. A question box will be opened at each meeting.

PERSONAL.

R. M. Sands, chief clerk of the Atlantic Division, and Mrs. Sands returned to the Isthmus on July 9.

Among the passengers on the *Allianca*, which docked at Cristobal July 15, were Commissioner and Chief Sanitary Officer W. C. Gorgas, Commissioner and Division Engineer of the Central Division D. D. Gaillard, Chief of the Division of Posts, Customs and Revenues Tom M. Cooke.

Secret Societies.

At the regular meeting of the Empire Masonic club, on Friday evening, the 17th instant, the annual election of officers will take place. Meeting at Kangaroo Hall, at 7.30 p. m.

Sojourners' Lodge, No. 874, A. F. and A. M. will meet at its hall in Colon on Saturday evening, July 18, at 8 p. m., in extraordinary communication for work in third degree. Master Masons in good standing are fraternally invited to be present.

On account of being unable to make satisfactory arrangements for transportation, the proposed excursion of Masons to Taboga Island on July 19 has been declared off. All moneys received from brother Masons for badges will be refunded by their respective representatives after a meeting of the committee on Sunday, July 19.

The women of Paraiso announce a social to be given on Friday evening, July 17, at the church. A part of the program of the old-fashioned concert given some weeks ago will be repeated by request, and several new features will be added. Homemade refreshments will be served, and a collection will be taken up, the proceeds to go toward the piano fund. The public is cordially invited.

The contract for building two type 14 houses at Cristobal has been let to Herman Bolton of Colon, whose bid was $3,899.

Rainfall, July 1 to 11, 1908, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Maximum in one day.	Total.
Atlantic Slope.		
Cristobal	2.06	4.61
Brazos Brook	1.73	6.31
Gatun	1.04	4.27
Bohio	.44	1.83
Tabernilla	.52	1.84
San Pablo	.62	2.13
Central Section.		
Bas Obispo	.84	2.50
Gamboa	1.00	3.20
Empire	.82	2.79
Camacho	1.03	4.89
Culebra	1.07	3.66
Pacific Slope.		
Pedro Miguel	.97	2.08
La Boca	.44	1.10
Ancon	.45	1.38

LOST—Pair of gold-rimmed eye-glasses, with the name of H. Silverthorn, Lynchburg, Va., on the case. Reward for return to R. S. Gill, Las Cascadas.

OFFICIAL CIRCULARS.

Applications for Reduced Freight Rate.

CIRCULAR No. 186.

Hereafter form 164-C. E. will be used instead of form 120-C. E., in requesting reduced freight rate and entry at Colon free of customs duty.

Employes of the Isthmian Canal Commission or Panama Railroad Company who desire to have goods or merchandise, intended for their own personal use, forwarded to them on the Isthmus by the Panama railroad and steamship line, at the special reduced freight rate allowed employes, must send request in quintuplicate on form 164-C. E., mentioned above, through the head of their division or department, to the Head of the Department of Civil Administration.

In event shipments are forwarded to the Isthmus without the request for such forwarding having been made as indicated above, the shipments will be forwarded at full tariff rate and under no circumstances will refund be made of the difference between the full tariff rate and the rate allowed employes; also considerable delay and difficulty will be experienced in obtaining entry at Colon free of customs duty.

(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer, I. C. C.
President, Panama Railroad Company.

Culebra, July 11, 1908.

Furnishing of Electric Current.

ISTHMIAN CANAL COMMISSION,
OFFICE OF THE DISBURSING OFFICER,
Empire, C. Z., July 10, 1908.

CIRCULAR No. 43.

To All Concerned: It is respectfully requested that on or before July 20, 1908, Heads of Departments furnish the Disbursing Office with list, in triplicate, of all buildings under their jurisdiction belonging to the Isthmian Canal Commission, to which electric current is furnished by the Panama Railroad Company. These lists should show buildings by divisions and subdivisions, in order that the Panama Railroad Company may be instructed to so render their bills that when same are received in the Disbursing Office the certification of correctness on each bill need be made by only one official of the Commission.

Where two or more Departments occupy the same building an agreement should be made in time to notify the Disbursing Office, on or before July 20, 1908, as to the proportion chargeable to each Department.

(Sgd.) EDWARD J. WILLIAMS,
Disbursing Officer.

Approved:
(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Classification of Disbursements.

ISTHMIAN CANAL COMMISSION,
DEPARTMENT OF DISBURSEMENTS,
Empire, C. Z., July 14, 1908.

CIRCULAR No. 44

To All Concerned: With the approval of the Chairman and Chief Engineer, the Disbursements of the Isthmian Canal Commission will be classified under the following accounts, effective July 1, 1908:

General Account No. 1. Classified Expenditures.

Sub-Accounts.

DEPARTMENT OF CIVIL ADMINISTRATION.

501. Administration.
502. Judiciary:
    A—Supreme and Circuit Courts.
    B—District Courts.
    C—Prosecuting Attorney.
503. Revenues and Posts:
    A—Division of Revenues
    B—Division of Posts.
    C—Division of Customs.
    D—Division of Lands and Buildings.
    E—Division of Estates.
504. Education.
505. Police and Prisons.
506. Fire Protection.
507. Military Protection.
508. Maintenance and Operation of Waterworks and Sewers—Panama.
509. Maintenance and Operation of Waterworks and Sewers—Colon.
510. Repairs and Maintenance of Pavements—Panama.
511. Repairs and Maintenance of Pavements—Colon.
512. Miscellaneous Zone Public Works.
513. Construction of Buildings.
514. Repairs of Buildings.

DEPARTMENT OF SANITATION.

520. Administration.
521. Hospitals and Asylums:
    A—Administration.
    B—Ancon Hospital.
    C—Colon Hospital.
    D—Other Hospitals and Dispensaries.
522. Quarantine.
523. Sanitation: Panama and Colon.
    A—Sanitation Proper—Panama.
    B—Disposal of Garbage, Street Cleaning, etc.—Panama.
    C—Sanitation Proper—Colon.
    D—Disposal of Garbage, Street Cleaning, etc.—Colon.
524. Zone Sanitation:
    A—Sanitation Proper.
    B—Disposal of Garbage, Street Cleaning, etc.
525. Construction of Buildings.
526. Repairs of Buildings.

DEPARTMENT OF CONSTRUCTION AND ENGINEERING.

530. Administration.
531. Dry Excavation.
532. Dredging Excavation.
533. Gatun Dam and Spillway.
534. Gatun Locks.
535. La Boca Dam and Spillway.
536. La Boca Locks.
537. Pedro Miguel Dam.
538. Pedro Miguel Locks.
539. Miraflores Dam and Spillway.
540. Miraflores Locks.

DEPARTMENT OF MUNICIPAL ENGINEERING.

551. Waterworks and Sewers—Panama.
552. Waterworks and Sewers—Colon.
553. Zone Waterworks and Sewers.
554. Paving—Panama.
555. Paving—Colon.
556. Zone Roadways.
557. Miscellaneous.

DIVISION OF BUILDING CONSTRUCTION.

561. Construction of Buildings.
562. Repairs of Buildings.

DIVISION OF MATERIAL AND SUPPLIES.

570. Salaries and Expenses on Isthmus.
571. Salaries and Expenses, Purchasing Agents, etc. in the United States.
572. Freight, Advertising and Miscellaneous Items.

DEPARTMENT OF LABOR, QUARTERS AND SUBSISTENCE.

580. Administration.
581. Recruiting.
582. Quarters.
583. Hotels, Messes and Kitchens.
584. Operations of Gardens and Truck Farms.

PLANT ACCOUNT.

590. Rolling Stock.
591. Excavating Machinery.
592. Floating Equipment.
593. Shops and Other Machinery and Tools.
594. Rails and Fasteners.
595. Ties.
596. Lands Purchased.
597. Docks and Wharfs.
598. Construction of Electric Light Plants.
599. Corral Equipment.
604. Panama Railroad Second Main Track
605. Relocation of Panama Railroad.
613. Porto Bello Plant.
614. Gatun Locks Construction Plant.
615. Gatun Spillway Construction Plant.
616. Miraflores Locks Construction Plant.
617. Pedro Miguel Locks Construction Plant.
618. Building Construction Plant.
619. Municipal Engineering Plant.

GENERAL EXPENSES.

630. General Expenses—Isthmian Canal Commission.
631. Disbursing Officers.
632. Examiners of Accounts.
633. Transportation on the Isthmus.
634. Telegraphs and Telephones.
635. Moving and Care of French Material and Equipment.
636. Construction and Furnishing the Santo Tomas Hospital.

General Account No. 2. Material and Supplies in Transit.

General Account No. 4. Material and Supplies.

General Account No. 5. Material and Supplies, Sanitary Department.

General Account No. 6. Manufacturing Account:

1. Operation of Printing Office.
2. Gorgona Shops.
4. Empire Shops.
5. Paraiso Shops.
6. La Boca Shipways.
7. Building Construction.
8. Brass Foundry.
9. Iron Foundry.
11. Cristobal Dry Dock.
12. Rio Grande Crusher.
13. Bas Obispo Crusher.
14. Division Engineer, Miraflores Locks, Sand Account.
15. Division Engineer, Miraflores Locks, Rock Crusher.
16. Corral Operations.
17. Operation of Electric Light Plants.
18. Porto Bello Rock Crusher.
19. Steel Foundry.

General Account No 8. Individuals and Companies—Collections returnable to appropriations.

General Account No. 8a. Individuals and Companies—Collections account of Miscellaneous Receipts U. S. Funds.

General Account No. 33. Sundry Accounts.

General Account No. 38. Value of Usable Material received from New Panama Canal Company.

General Account No. 47. Material and Supplies—Division of Building Construction.

General Account No. 50. Material and Supplies—Division of Motive Power and Machinery.

General Account No. 51. Material and Supplies—Division of Municipal Engineering.

General Account No. 52. Material and Supplies—Department of Labor, Quarters and Subsistence.

General Account No. 53. Material and Supplies—Colon Division.

General Account No. 54. Material and Supplies—Gatun Locks Division.

General Account No. 55. Material and Supplies—Chagres Division.

General Account No. 56. Material and Supplies—Culebra Division.

General Account No. 57. Material and Supplies—La Boca Dredging Division.

General Account No. 58. Material and Supplies—Miraflores Locks and Dam Division.

General Account No. 59. Material and Supplies—Engineer in Charge of Relocation of Panama Railroad.

General Account No. 60. Material and Supplies—Telegraph and Telephone.

General Account No. 62. Losses paid the Panama Railroad Company.

General Account No. 63. Material and Supplies—Atlantic Division.

General Account No. 64. Material and Supplies—Central Division.

General Account No. 65. Material and Supplies—Pacific Division.

The definitions of the above accounts and complete accompanying instructions are now in the hands of the printer, and will be furnished as soon as possible. Any information or explanation desired can be obtained from this office, by correspondence or telephone.

(Sgd.) EDWARD J. WILLIAMS.
Disbursing Officer.

STATEMENT OF CLASSIFIED EXPENDITURES TO MAY 31, 1908.

The following table shows expenditures for Canal work, classified monthly, since July 1, 1907. The figures give only expenditures which have been located. In addition, there have been some disbursements, such as purchasing material, etc., which it will not be possible to locate to a specified account until their use has been finally determined:

Period.	Civil Administration.	Sanitation.	Construction and Engineering.	Municipal Improvements.	Plant Account.	Total.
Prior to July 1, 1907	$1,440,525.83	$4,611,464.97	$13,408,077.65	$4,259,334.04	$19,323,886.59	$43,043,289.08
July	51,183.84	149,270.94	962,477.19	146,131.93	580,562.68	1,889,626.58
August	67,548.53	214,018.03	1,196,803.45	192,227.75	767,153.24	2,437,751.00
September	63,239.62	253,108.77	1,194,304.85	107,840.85	1,068,300.58	2,686,794.67
October	53,227.97	189,196.38	1,372,311.81	123,939.88	1,131,450.91	2,870,126.95
November	54,529.02	166,381.82	1,217,120.31	115,625.44	1,105,590.16	2,659,246.75
December	64,903.04	213,725.16	1,369,822.79	125,420.96	591,298.02	2,365,169.97
1908—						
January	66,802.92	221,866.30	1,468,021.44	156,956.22	1,584,821.98	3,498,468.86
February	72,511.14	174,076.77	1,523,011.72	100,700.40	889,405.82	2,759,708.85
March	63,653.60	165,311.77	1,460,229.91	110,232.15	1,307,321.82	3,106,749.25
April	74,046.55	178,041.65	1,580,416.19	138,115.21	797,137.63	2,767,757.23
May	73,340.26	181,381.35	1,580,369.11	69,824.83	955,405.12	2,863,320.67
Total	$2,145,515.32	$6,720,843.91	$28,332,966.42	$5,646,349.66	$30,102,334.55	$72,948,009.86

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week beginning July 15:

FRESH MEATS, POULTRY AND COLD MEATS.

		Price.
Beef—Sirloin roast	per lb	30
Rump roast	per lb	30
Porterhouse	per lb	30
Rib-roast, short cut (not under 3½ pounds)	per lb	24
Rib-roast, second cut	per lb	20
Chuck roast	per lb	15
Soup	per lb	9
Stew	per lb	12
Corned	per lb	12, 14, 16
Suet	per lb	4
Steaks—Sirloin	per lb	30
Porterhouse	per lb	30
Rump	per lb	30
Round	per lb	24
Veal—Cutlets	per lb	24
Short-cut chops	per lb	24
Loin	per lb	23
Entire forequarters (15 to 20 lbs)	per lb	11
For stewing	per lb	11
Mutton—Entire forequarters, (not under 10 lbs)	per lb	9
Short-cut chops	per lb	20
Leg (8 to 10 lbs)	per lb	18
Lamb—For stewing	per lb	10
Entire forequarters	per lb	10
Chops	per lb	30
Leg (6 to 8 lbs)	per lb	28
Pork—Cuts	per lb	20
Livers—Beef	per lb	11
Calf	each	60
Sausage—Pork	per lb	16
Bologna	per lb	15
Lieberwurst	per lb	15
Sweet bread—Veal	each	1.20
Beef	per lb	25
Tripe, pickled, Honeycomb	per lb	12
Pigs' tongues (salted)	per lb	15
Pigs' feet	per lb	11
Ox tongues	each	90
Chickens, dressed (milk-fed)	each	1.40
Chickens, large	each	1.90
Fowls, medium and large	each, $1.00 and	1 25
Ducks, fatted (fancy)	each	1.10
Suckling pigs	each	4.90
Turkeys	per lb	28
Squabs	each	45
Eggs (fresh)	per dozen	28
Broilers	each	85
Capons	each	2.40
Bacon—Strips	per lb	23
English, breakfast, sliced	per lb	§26
Ham—Sugar-cured, sliced	per lb	§25
One-half, for boiling	per lb	§20
Westphalia	per lb	45
Whole, Ferris	per lb	19
Swift	per lb	18
Beef, salt, family	per lb	14
Salt Pork	per lb	13

DAIRY PRODUCTS.

Butter, prints, prime quality	per lb	35
Cheese—Cream, Phila	each	22
Neufchatel	each	6
Roquefort	per lb	45
Young America	per lb	22
Swiss	per lb	33
Gouda	per lb	34
Edam	each	1 05
McLaren's	per jar	15
Pinxter's	per tin	22
Milk, Briarcliff	quart	25
Buttermilk	bottle	15

FRUITS AND VEGETABLES.

Pineapples	each	12
Oranges	dozen	15
Limes	hundred	70
Lemons	dozen	18
Plums	per lb	15
Peaches	per lb	10
Cantaloupes	each	10
White potatoes	per lb	3½
Cabbage	per lb	3½
String beans	per lb	12
Corn	dozen	30
Onions	per lb	4½
Watermelons	each	35
Cucumbers	per lb	8
Sweet potatoes	per lb	2½
Squash	per lb	7
Okra	per lb	10
Yams	per lb	3½
Turnips	per lb	6
Carrots	per lb	6
Leeks	bunch	10

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§ Sold only from cold-storage and not from Commissaries.

NEW ARTICLES.

		Price.
Hammocks	each	5.25
Pants, khaki	pair	1.20
Pajamas	suit	1.35
Suits, sleeping	from $1.60 to	2.25
Link buttons	pair	2.30
Pins, cuff	pair, 20c. and	25
Sticks, manicure	each	4
Knives, mincing, No. 5	each	25
Knives, kitchen	each	10
Pans, baking; agate, 13x4x2½-inch	each	20
Kettles, tea	each, 45c and	50
Bowls, wood, round, 17-inch diameter	each	45
Bowls, wood, round, 19-inch diameter	each	65
Persian lawn	yard	20
India Linen	yard	20, 30
Shirtings, cotton, American	yard	6
Gingham, Amoskeag	yard	7
Hose, white cotton	pair	30
Pans, roasting, steel, 6x9,	each	7
Pans, roasting, steel, 10x8	each	10
Pans, roasting, steel, 14x9	each	15
Spoons, wood, 13-inch	each	3
Spoons, wood, 15-inch	each	5
Washboards, National	each	25
Hammers, claw, No. 01½	each	25
Picks, ice, No. 70	each	15
Spoons, tea, silver-plated	each	15
Spoons, dessert, silver-plated	each	25
Spoons, table, silver-plated	each	30
Almonds, Valencia, sugared, Leggett's	per lb	32
Canvass	yard	60
Sponges, bath	each from 10c. to	$1.00
Soaps, Ottar of Roses, Pears'	cake	50
Half hose, white lisle	pair	45
Kimonos	each, 1.35 and	2.50
Gloves, silk, black and white	pair	1.50
Dotted Swiss	yard 35 and	55
Lawn, Persian	yard	27
Quilts, dimity	each	1.40
Bowls, soup	each 8 and	10
Dishes, vegetable, 10-in	each	20
Dishes, vegetable, 8-in	each	15
Dishes, vegetable, 6-in	each	10
Plates, soup, 9-in	each	8
Plates, dinner, 9-in	each	8
Cups and saucers	set	10
Bowls, sugar	each	20
Hatchets, claw	each	35
Shovels, stove, extra heavy	each	15
Hods, coal, japanned	each	20
Knives, butchers, 10-in	each	45
Knives, butchers, 6-inch	each	20
Knives and forks five of each in set	set	1.40
Funnels, agate, 1-pint	each	15
Pans, dish, seamless 21-qt	each	60
Cups, drinking, 1-pint	each	10
Cups, drinking, 1-qt	each	12
Spoons, kitchen, retinned, 18-in	each	25
Spoons, ice-cream, with 16-in. wood handle	each	10
Hats, tan, gray and white canvas	each	50
Belts	each	35
Undershirts, Dr. Jaeger's Sanitary	each	2.50
Balls, camphor	box	5
Tags, leather, with nickel buckles	each	35
Syringes, fountain combination	each	1.65
Thimbles	each	3
Tape, twilled, ¼-in., ⅜-in., ½-in	piece	8
Tape, twilled, ⅝-in., ¾-in	piece	10
Curtains, scrim	pair	1.00
Chambry, light blue	yard	14
Jugs, syrup, white glass	each	90
Cocoanut Kisses, 1-lb tins	tin	50
Buttons, link, cuff	pair, $1.10, $1.70 and	2.05
Drawers and undershirts	each	1.20
Buffers, nail, chamois or brown kid	each	50
Shoes, Men's, pat., Colt., blu., Goodyear	pair	4.70
Pioneer high-cut boottees	pair	5.15
Willow russet, calf, blu., oxf	pair	3.50
Pat. Colt, high-cut	pair	5.35
High-cut, blu	pair	2.70
Men's, Rus. calf, blu., oxf., Climax	pair	3.20
Women's, russet, blu., oxf	pair	2.40
Bowls, white glass, 6-in	each	15
Bottles, water, white glass	each	35

In the week ending Friday, July 10, there arrived at the port of Ancon the *Limari*, from Valparaiso; *Ecuador*, from Guayaquil; *Barracouta*, from Central America; *Acapulco*, from San Francisco; *Swanhilde*, from Australia; *California*, from Valparaiso. The *Panama* departed for Valparaiso, and the *San Jose* for San Francisco.

MOVEMENT OF OCEAN VESSELS.

The following is a list of the sailings of the Panama Railroad Steamship Company, of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON.

Pr. Eitel Friedrich	H.-A.	Friday	July 10
Atrato	R.-M.	Saturday	July 11
Finance	P. R.R.	Monday	July 13
Esperanza	P. R.R.	Saturday	July 18
Pr. Aug. Wilhelm	H.-A.	Saturday	July 18
Colon	P. R.R.	Thursday	July 23
Prinz Sigismund	H.-A.	Friday	July 24
Clyde	R--M.	Saturday	July 25
Advance	P. R.R.	Tuesday	July 28
Prinz Joachim	H.-A.	Saturday	Aug. 1
Allianca	P. R.R.	Monday	Aug. 3
Finance	P. R.R.	Friday	Aug. 7
Pr. Eitel Friedrich	H.-A.	Friday	Aug. 7
Trent	R.-M.	Saturday	Aug. 8
Panama	P. R.R.	Wednesday	Aug. 12
Pr. Aug. Wilhelm	H.-A.	Saturday	Aug. 15
Advance	P. R.R.	Monday	Aug. 17
Prinz Sigismund	H.-A.	Friday	Aug. 21
Colon	P. R.R.	Saturday	Aug. 22
Tagus	R.-M.	Saturday	Aug. 22
Allianca	P. R.R.	Thursday	Aug. 27
Prinz Joachim	H.-A.	Saturday	Aug. 29

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston enroute to Colon.

FROM COLON TO NEW YORK.

Panama	P. R.R.	Thursday	July 16
Allianca	P. R.R.	Tuesday	July 21
Prinz Joachim	H.-A.	Tuesday	July 21
Finance	P. R.R.	Sunday	July 26
Trent	R.-M.	Tuesday	July 28
Esperanza	P. R.R.	Friday	July 31
Pr. Aug. Wilhelm	H.-A.	Tuesday	Aug. 4
Colon	P. R.R.	Wednesday	Aug. 5
Advance	P. R.R.	Monday	Aug. 10
Tagus	R.M.	Tuesday	Aug. 11
Allianca	P. R.R.	Saturday	Aug. 15
Prinz Joachim	H.-A.	Tuesday	Aug. 18
Finance	P. R.R.	Thursday	Aug. 20
Panama	P. R.R.	Tuesday	Aug. 25
Magdalena	R. M.	Tuesday	Aug. 25
Advance	P. R.R.	Sunday	Aug. 30
Pr. Aug. Wilhelm	H.-A.	Tuesday	Sept. 1
Colon	P. R.R.	Friday	Sept. 4
Orinoco	R.-M.	Tuesday	Sept. 8
Allianca	P. R.R.	Wednesday	Sept. 9

FROM NEW ORLEANS TO COLON.

Preston	U.F.C.	Saturday	July 11
Harry T. Inge	U.F.C.	Saturday	July 18
Ellis	U.F.C.	Saturday	July 25

FROM COLON TO NEW ORLEANS.

Preston	U.F.C.	Tuesday	July 21
Harry T. Inge	U.F.C.	Tuesday	July 28
Ellis	U.F.C.	Tuesday	Aug. 4

FROM COLON TO BARBADOS, CALLING AT TRINIDAD.

Atrato	R.-M.	Tuesday	July 21
Clyde	R.-M.	Tuesday	Aug. 4
Trent	R.-M.	Tuesday	Aug. 18
Tagus	R.-M.	Tuesday	Sept. 1

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company dispatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan ports, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Median*, about July 19, and *Jamaican*, about July 27.

CANAL RECORD

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The Canal Record

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No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Chairman's Monthly Report.

The report for the month of June of the Chairman of the Isthmian Canal Commission is published in other columns of this issue of THE CANAL RECORD. It shows that the total excavation on all divisions of the Canal during the month was 3,060,307 cubic yards, of which 1,828,538 cubic yards were taken out by steam shovels, and 1,231,769 cubic yards by dredges. The total amount excavated from the Canal prism was 2,894,991 cubic yards. Compared with that for June, 1907, the total excavation was 2,103,015 cubic yards greater, and the mean rainfall of 10 inches was 2.6 inches less. Compared with May, 1908, the total excavation in June was 356,384 cubic yards greater and the mean rainfall 4.7 inches less. The total labor force actually at work on the last day of June was 20,991 men. The death rate in the Canal Zone was 12.35 per thousand, as compared with 27.53 for June, 1907. The improvement in the death rate of colored employes, 9.46 per thousand, as compared with 29.96 in June, 1907, is due in a large measure to the general sanitary conditions on the Isthmus, and to the better food, better bedding and clothing afforded the laborers, together with their gradual adaptation to their new environment. The subsistence operations for June show a profit of $991.08 as compared with a loss of $4,708.65 in May.

The total excavation in the Culebra Division during the month was 1,134,032 cubic yards, an increase of 173,192 cubic yards as compared with the amount excavated in May. Of the amount excavated 1,099,068 cubic yards were removed from the Canal prism, and 34,964 cubic yards from the Obispo Diversion. Compared with the work performed during the corresponding month of 1907, the total excavation by steam shovels in the Culebra Division was 82 per cent greater, and the average output per shovel per day was about 56 per cent greater. The rainfall in June, 1907, was about 42 per cent greater than in June, 1908. The number of working days this year was 26 as compared with 25 in June last year; the average number of steam shovels working, 42.92 against 38.28 in June, 1907; the average amount of excavation per shovel per day, 1,016 cubic yards, against 652 in June of last year, and the average amount excavated per shovel per month was 26,422 against 16,311 cubic yards in June, 1907.

At the Gatun lock site six steam shovels were at work during the month, excavating 143,295 cubic yards. At the Gatun dam and spillway three steam shovels worked during the month, excavating a total of 101,656 cubic yards. At the Miraflores lock and dam site 68,691 cubic yards were excavated, and the stripping of the dam site reached a point where steam shovels can be put to work excavating for the core of the dam. The total excavation on the Chagres Division was 327,333 cubic yards.

In the relocation of the Panama railroad 9,860 cubic yards of material were excavated, 137,170 cubic yards were placed in embankments, and 1,170 linear feet of trestle were driven. The work of excavating the Miraflores tunnel was 93 per cent completed at the end of the month.

June Revenues.

The report of the Acting Chief of the Division of Posts, Customs, and Revenues, for the month of June shows that 14,169 money orders, amounting to $426,621.97, were issued, an increase of $23,513.83 over the amount reported for May. Of this total there was drawn in orders on the United States and elsewhere $308,448.00, and in orders payable in the Canal Zone, $118,173.97.

The largest number of orders, 2,501, was issued at Cristobal and amounted to $72,011.41; Empire was second, with 1,725 orders, amounting to $54,160.19; Gorgona third, with 1,468 orders, aggregating $47,042.21; Culebra fourth, with 1,432 orders, amounting to $41,691.78; and Ancon fifth, with 1,410 orders, aggregating $36,955.34.

Postage sales for the month of June amounted to $5,699.60, and other collections for the month were as follows: Land rents, $1,538.82; buildings, $457.50; distillery licenses, $308.98; district taxes and licenses, $13,558.49; district court fines and costs, $2,639.60; and miscellaneous bills, $1,095.84.

Immigration and Labor Force.

The total immigration at Isthmian ports in June was 7,252 persons, and the total emigration was 4,569, the apparent increase being 2,683. The passengers coming from foreign ports numbered 5,630, of whom 3,898 were steerage passengers. The embarkations for foreign ports numbered 2,710, of which 1,252 were in the steerage. This is an apparent increase of 3,646 steerage passengers. Two hundred and thirty-seven more people embarked for coast towns than arrived from those ports. Contract laborers to the number of 805 were received during the month, of whom 590 were West Indians and 215 were Europeans. The total number of gold employes occupying Commission quarters on June 30 was 5,039; the total of common laborers (principally West Indians) was 8,627, and the total number of European laborers was 5,246. A large number of West Indian laborers employed by the Commission do not live in Commission quarters. The total number of employes actually at work on June 30 was 25,578, of whom 4,587 were on the "gold" roll.

Changes in Organization and Personnel.

By order of the Chairman, the Department of Labor, Quarters and Subsistence, and the Department of Municipal Engineering, Motive Power and Machinery, and Building Construction have been abolished. The Quartermaster's Department and Subsistence Department have been established, and the Personnel Division, formerly in the Department of Labor, Quarters and Subsistence has been transferred to the Chairman's office, under charge of the Assistant to the Chairman. Details of these changes are contained in Official Circulars, Nos. 183C, 183D, and 183E, published elsewhere in this issue of THE CANAL RECORD.

Maj. Wm. L. Sibert, division engineer of the Atlantic Division, has issued the following orders under date of July 1:

CIRCULAR NO. 1.

Pursuant to circular No. 183 Office of the Chairman and Chief Engineer of the Isthmian Canal Commission, dated June 19, 1908, the undersigned assumed charge of the Atlantic Division of the Department of Construction and Engineering:

Maj. Chester Harding, assistant division engineer, is assigned to duty in local charge of Gatun locks and dams.

Maj. Edgar Jadwin, resident engineer, is assigned to duty in local charge of the harbor, canal and lake section of this division, including the Marine shops at Cristobal.

Mr. R. M Sands is hereby appointed chief clerk of the Atlantic Division.

Capt. H. W. Stickle, assistant engineer, is hereby assigned to duty under Assistant Division Engineer Harding.

Mr. H. B. Smith, assistant engineer, is hereby assigned to duty under Resident Engineer Jadwin.

Capt. Geo. M. Hoffman, assistant engineer, is hereby assigned to duty under Assistant Division Engineer Harding in connection with the Gatun dam.

Gatun, C. Z., July 1, 1908.

S. B. Williamson, acting division engineer of the Pacific Division, has issued the following order, under date of July 16, 1908:

Effective August 1: The Pacific Division will, for construction purposes, be divided into districts, as follows:

First District—Pedro Miguel and Miraflores Locks and Dams, Dry Excavation at Cardenas Hill, and Stone Quarry at La Boca: Mr. G. B. Strickler, Resident Engineer.

Second District—Dredging between Miraflores Locks and deep water, Chamé, Marine Shops and Floating Equipment Mr. W. G. Comber, Resident Engineer.

Prior to the above date Resident Engineers will submit recommendations for the organization of their

NOTES OF PROGRESS.

(*Continued*)

districts and arrange for such transfer of force and plant as may be necessary.

Maj. C. A. Devol, Chief Quartermaster, has issued the following orders in the form of letters, directed to the division superintendents of the Quartermaster's Department at Gorgona, Cristobal, and Empire, and the acting superintendent at Ancon:

Culebra, July 20, 1908.

1. Effective August 1, 1908: The title and offices of the Division Superintendents are abolished.

2. All records and files pertaining to those offices will be removed to Culebra without delay.

3. Local supervisors will be known hereafter as District Quartermasters. They will report direct to the office of the Chief Quartermaster.

The Matachin District of this Department is abolished. Gold quarters at Matachin will be attached to the Gorgona District. Gold and silver quarters at Santa Cruz will be attached to the Bas Obispo District.

Culebra, July 20, 1908.

1. Effective August 1, 1908: Mr. C. L. Parker and Mr. C. C. McColley are appointed Inspectors, with headquarters at Culebra. They will perform such duties as may be assigned to them by the Chief Quartermaster.

2. The following transfers of District Quartermasters are announced, effective August 1, 1908:

B. C. Poole from Empire to Ancon.

J. B. Jeffries from Ancon to Empire.

I. A. Giles from Gatun to Cristobal.

3. A. H. Moore is appointed District Quartermaster at Gorgona.

R. M. Gamble is appointed District Quartermaster at Bas Obispo, vice M. R. Currie, transferred.

Roy R. Watson, is appointed Acting District Quartermaster at Gatun.

J. M. King is appointed Acting District Quartermaster at Tabernilla.

W. H. South is relieved from duty as Local Supervisor at Tabernilla and will report for duty as Assistant to the District Quartermaster at Culebra.

J. K. Baxter, chief clerk of the Department of Civil Administration, prior to July 20, has been promoted to the position of assistant chief clerk in the office of the Chairman, and will have charge of the personnel division. George A. Ninas has been promoted from clerk in the Department of Civil Administration, to the position of chief clerk, vacated by Mr. Baxter.

The following order has been received on the Isthmus:

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington July 8, 1908.

Special Orders, No. 22.

Capt. Frank C. Boggs, Corps of Engineers, is hereby assigned to duty in charge of the Purchasing Department to be maintained by the Chief of Engineers in the office of the Isthmian Canal Commission in Washington, D. C., relieving Lieut.-Col. Harry F. Hodges, Corps of Engineers, assigned to duty on the Isthmus of Panama.

(63599—C. of E.)

By command of the Chief of Engineers:

FREDERIC V. ABBOT,
Lieut.-Col., Corps of Engineers.

Experimental Dams at Gatun—Test Pits.

A second experimental dam is being constructed at Gatun in the large tank, in which the first dam was made, and on the same scale, 1 to 12. In the first dam the material was pumped in from the downstream toe, the result being that the very fine particles of earthy material, which are most impervious to water, were deposited along the upstream face. A head of water 85 inches deep in the experimental dam, representing 85 feet in actual depth, was applied to the upstream face of this dam May 14, and the experiments were continued until a constant rate of seepage had been maintained for a week. All the information needed from the first dam has been procured, and the results are satisfactory beyond expectation.

The material is sandy clay, a deposit of which was found on the Chagres river, in an area distant from the axis of the Gatun dam from three-quarters of a mile to a mile and a half, and in quantity sufficient to construct the Gatun dam. In the construction of the first experimental dam, much of the finer impervious material was lost in the water that drained off, and yet the deposit on the upstream face was very water-tight. The remainder of the material arranged itself in such a way that, although offering great resistance to percolation, any water which penetrated the upstream face drained off readily, and the line of saturation was kept very low. At grade 85, which corresponds to the proposed height of the water in Gatun Lake, the water was held a week. As some question might arise in the lay mind whether the action of the water against a dam one-twelfth of the size of the proposed dam would be the same as in the case of the big dam, the level of the water was dropped to grade 45 and held there for a week. The results of these experiments indicate that the relations between water at grade 85 and grade 45 are very similar.

In the new dam the material will be pumped into the tank from both downstream and upstream faces, in order that more of the fine material may be deposited, as an impervious core, in the center of the dam.

The test pit on Gatun Island, June 11, was 57 feet deep, and was still in impervious clay. On the same date the test pit in the spillway at Gatun was 56 feet deep, and the material being encountered was hard, brown conglomerate.

Meals for West Indian Laborers.

Returns from the common laborers' messes for the month of June show that the number of rations served increased about 30 per cent over the number served in May. Prior to June 1, about two thousand negro laborers were paid at the rate of 13⅓ cents silver an hour and furnished with meals, and a varying number of negro laborers paid on a money basis only, also got their food at the mess kitchens. The larger part of the unattached negro laborers bought and cooked their own food. Continued observation of the men who took their meals at the mess kitchens and those who ate elsewhere established that the working efficiency of the former was greater, and that illness was less frequent among them. To insure the benefits of good food and plenty of it for a greater number of this class of employes, all unattached West Indian laborers, excepting those employed by the Panama Railroad Company and fed in its mess cars, have been paid at the rate of 20 cents silver or 26 cents silver an hour, since June 1, and 60 cents silver a day has been deducted from their wages as pay for a ration of three meals served them at the mess kitchens. As this charge is made and the amount deducted from the laborers' wages, whether he takes the food or not, he is practically compelled to eat at the Commission mess kitchens. The 60 cents silver (30 cents gold), charged for each ration of three meals, represents the actual cost to the Commission for food and service.

In May, 221,388 meals were served at the mess kitchens for West Indian laborers, an average of 7,144 meals a day. In June, 606,612 meals were served at these messes, an average of 20,220 a day. In other words the average number of West Indian laborers being fed at the Commission messes in May was 2,381, and the average number in June was 6,740. The number of occupants of bachelor quarters for common laborers, June 30, was 7,557.

The difference between the food served at the kitchens and that which the West Indian laborer was accustomed to furnish himself is particularly noticeable in the amount and quality of the meat, although the kinds and quality of vegetables served are also greater than he would ordinarily allow himself. The staples of the mess-kitchen diet are fresh and salt meats, potatoes, bread, tea, coffee, rice, peas, and other vegetables. In addition to the fact that the laborer would not provide himself with sufficient or proper food, the time taken in preparing his meals was also an element in reducing his efficiency. Whereas he formerly came in from his work and spent an hour or more preparing his supper, he now goes direct to the kitchen and gets a hot meal immediately at the close of the day's work. Likewise in the morning an hour is saved him by having his meals prepared for him. The two hours a day thus added to his leisure time also add to his efficiency as a productive unit. Thirty-five kitchens for common laborers are maintained in the Canal Zone at this time, at least one in each labor camp.

New Steamers for New Orleans.

Three new steamships of the United Fruit Company, the *Cartago*, *Parismina* and *Heredia*, will shortly be in service between New Orleans and Colon. They are of about 5,000 tons displacement, and each has accommodations for 125 cabin passengers. On each boat a number of staterooms are en suite, with metal beds, dressers, wardrobe, bath and toilet. All staterooms are supplied with electric fans, and cool air from the refrigerator plant. Each ship has shower and tub baths, music, and smoking rooms, and promenade deck, and is supplied with a wireless telegraph outfit. They are built for service in the tropics and each has a large cold storage space. The *Cartago*, the first to be put in service, sailed from Belfast, Ireland, on July 3, for New Orleans *via* Port Limon. She will sail from New Orleans in place of the *Preston* about August 2 for Colon, where she is due about August 7. The second boat will leave Belfast the latter part of July, and will take the place of the *Harry T. Inge*. The third will be out in September, and will take the place of the *Ellis*.

Repairs to Dredge "Culebra."

The sea-going suction dredge *Culebra* was taken out of commission on July 14, and beached on Perico Island in Panama Bay, for minor repairs. Her bottom was scraped and painted, new lignum vitæ bushing was put in around the propellor shaft, hopper door bolts were renewed, and upper works painted. She was put back in service, Friday afternoon, July 17.

LOST—On July 15, on steamer *Bolivar* during trip from Los Santos to Panama, one gold bar link cuff button with egg shaped button on one end of bar and oval plate with beaded edge at the other end. Finder please return to the office of THE CANAL RECORD.

ISTHMIAN MECHANICAL SHOPS.

III.

Plants at Paraiso and Pedro Miguel.

Paraiso shops are located on the east side of the Canal at the south end of Culebra Cut, on a site formerly occupied by two shop buildings erected by the French for making field repairs. The old French buildings and two buildings erected by the Americans for temporary purposes were used until the present plant was completed in September, 1907. These shops are designed to handle light repairs to all classes of equipment and machinery from the south end of Culebra Cut to the Pacific Ocean. At present they make light repairs to locomotives and light and heavy repairs to steam shovels, repairs to rock and well drills, and do other miscellaneous work. As Culebra Cut becomes deeper, and the work on the Pacific end of the Canal increases, the usefulness and scope of the shops at Paraiso will increase.

What was said (THE CANAL RECORD, Nos. 45 and 46) in the articles on the shops at Gorgona and Empire, about the mechanical force, applies likewise to the Paraiso shops, as indeed it does to all work on the Isthmus. The force actually at work on June 30, was 325 men, of whom 202 were on the "silver" roll, which comprises the helper class. The pay roll for June was $24,267.25. In the fiscal year, 1908, the pay roll amounted to $302,836.96, and the amount of material used was valued at $132,735.07. The total disbursed for wages and material thus amounted to $435,572.03. The master mechanic of the Paraiso shops, E. C. Harrington, has charge also of the engine house, repair shop, car repair shops, and the coal chute at Pedro Miguel and the hostling house at La Boca.

The Paraiso erecting shed is entered from the south end by six tracks, so arranged with a switching system that a transfer table is not necessary. A platform, 150 feet by 40 feet, is the first unit. Back of it is a 6-pit erecting shed 150 feet by 74 feet. Behind the erecting shed are the blacksmith and boiler shops, 85 feet by 160 feet, and a machine shop, 60 feet by 160 feet. Directly behind the machine shop is a storehouse, 30 feet by 140 feet, with ample platform, under the control of the Division of Material and Supplies. In this building is also located the master mechanic's office. Back of the blacksmith and boiler shops is a carpenter shop, 32 feet by 60 feet; an iron rack, 20 feet by 60 feet, and a rope walk for handling unloader cables, 15 feet by 60 feet. Conveniently located is a latrine and wash room, 32 feet by 60 feet. The shops are connected to the 10-inch air main that runs through Culebra Cut, and electric current for lighting is supplied from the power plant at Empire. The water service of Paraiso is supplied by a pump located in the machine shop.

Power is furnished by a 75-horse power, old French compound steam engine supplied from a 125-horse power vertical boiler. This boiler now uses coal, but will soon be fitted with a burner for crude oil, which will be supplied from two tanks with a capacity of 270 barrels.

The blacksmith shop and boiler shop have each three jib cranes. The erecting shop is equipped with 1 movable jib crane, which can be run in on any of the tracks, and 6 traveling cranes, one over each track pit. These overhead cranes were made from old French material and, as there is one over each track, work can be done on any or all the tracks without delay. The machinery in the Paraiso plant includes:

Two 18-inch by 6-foot engine lathes; two 8-inch by 18-inch lathes; one 2-inch by 26-inch French lathe; one 14-inch tool room lathe; one 18-inch by 5-foot engine lathe; one 12-inch by 48-inch lathe; one 24-inch lathe; one 42-inch by 16-foot lathe; one 12-inch by 8½-inch by 10-inch duplex pump; one 4½-inch by 2¾-inch by 4-inch duplex pump; one 12-inch cross compound air pump; one 1¾-inch by ⅜-inch portable boiler test pump; one 8-inch by 10-inch upright French marine engine; one 8-foot by 14-inch cross compound engine; one 100-pound helve hammer; one single frame steam hammer; one 3-foot 3-inch by 6-foot rip-saw table; one 36-inch travel cold saw; one 32-inch by 37-inch boring and turning mill; one ½-inch to 2-inch vertical wood boring mill; one 24-inch by 7½-inch by 18-inch universal milling machine; two 16-inch emery wheels; one 18-inch emery wheel, one 12-inch emery wheel; one 48-inch by 6-inch portable grindstone; one 9-inch by ½-inch power saw grinder; one 12-inch combined wet and dry floor grinder; one ⅛-inch to 3½-inch wet or dry twist drill grinder; one 6-inch universal cutter and grinder; one 20-inch drill press; two 26-inch sliding head drill presses; one 60-inch universal radial drill press; one 84-inch radial drill press; one 36-inch hand power bending rolls; one rotary bending rolls; one 3-foot by 2-foot 6-inch French planer; one 33-inch by 33 inch by 10-foot planer; one 3-foot 6-inch hand power sheet folder; one 24-inch back gear crank shaper; one ¼-inch to 2-inch double head bolt cutter; one 48-inch rotary French fan, one 30-inch by 36-inch forcing press; one 48-inch throat rotary splitting shears; one 3-foot hand power spurring shears; one 36-inch throat double punch and shears; one 2-inch pipe bending machine; one 6-inch pipe cutting and threading machine; one 12-inch pipe cutting and threading machine; one 12-foot plate flanging clamp; one 16-inch horizontal boring machine; one stationary boiler—upright tubular, 125-horse power; one 18-inch hand power tin shop roller.

In the fiscal year 1908, general repairs were made on 22 locomotives; running repairs on 6,635 locomotives; general repairs on 14 steam shovels, running repairs on 394 steam shovels. No running repairs were made on steam shovels after December, 1907. During the year repairs were also made on 21,032 cars.

At the Pedro Miguel engine house, light repairs are made on locomotives; and the principal work done at the car shops is repairing 80,000-pound wooden flat cars used with Lidgerwood unloaders. The engine house is 72 feet by 340 feet. The shop is in a detached building 26 feet by 60 feet, and contains the following equipment:

Machine shop—One French 10-inch by 12-inch engine and boiler; one French double punch and shear, 18-inch throat; one grindstone; one 14-inch emery wheel; one 18-inch lathe; one 18-inch French shaper; one sliding head 26-inch drill press; one bolt cutter, ½-inch to 2-inch, double head; one 2-cylinder hoisting engine.

Coal Chute—One 2-cylinder hoisting engine; one stationary boiler—38-horse power; one old French pump made into an engine for running the sand shaker.

The coal chute at Pedro Miguel has 20 pockets and in the month of June 5,200 tons of coal was supplied to engines from these pockets.

The car repair shed is 20 feet by 78 feet, and a new shed, 32 feet 6 inches by 260 feet has been authorized.

At the La Boca engine house, locomotives, track shifters and Lidgerwood unloaders are hostled. At this place are also a sand house, 10 feet by 20 feet, and an oil house, 8 feet by 12 feet.

New Car Shop at Gorgona.

The new car shop at Gorgona Shops and Foundry will be occupied this week. A lower sick rate and increased efficiency are expected in the force of car repair men, numbering 196 mechanics and helpers. The new shop is of frame construction, corrugated iron roof, 600 feet by 110 feet, and high enough under the roof to allow free movement for locomotive cranes. There are five tracks running the length of the building, three for car repair work, and two for miscellaneous equipment. Compressed air is carried throughout the shop, which is equipped with work benches, bins for bolts and nuts, and stock racks. The car repairing at this shop is largely heavy repairs to wooden cars. In the fiscal year 1908, repairs were made to 23,423 freight cars, at a cost for labor and material of $277,554.76, and in addition work cars were repaired at a cost of $16,012.94.

Heavy Rainfall at Gatun.

At Gatun, on July 16, 3.10 inches of rain fell between the hours of 12.10 and 1.20 p.m. This covered a period of 70 minutes and was almost entirely a local shower as the rainfall for the same period at Cristobal, about seven miles north, was 1.72. At Brazos Brook, about four miles north, it was 0.78, and at Bohio, about eight miles south, it was 0.60. The total rainfall at Gatun for the 24 hours ending at midnight, July 16, was 3.46 inches. In comparison the records of the Division of Meteorology and River Hydraulics show the following heavy hourly rainfalls: On October 16, 1907, 3.68 inches of rain fell in one hour at Culebra, and 3.43 inches at Comacho; and on June 6, 1908, 3.8 inches fell in one hour at Porto Bello.

Rainfall, July 1 to 18, 1908, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Maximum in one day.	Total.
Atlantic Slope.		
Cristobal	2.06	9.29
Brazos Brook	3.40	12.94
Gatun	3.46	9.84
Bohio	1.03	4.18
Tabernilla	.99	4.04
San Pablo	.62	3.88
Central Section.		
Bas Obispo	.84	3.80
Gamboa	1.00	4.79
Empire	1.06	4.73
Camacho	1.03	6.52
Culebra	1.07	5.46
Rio Grande	1.04	5.71
Pacific Slope.		
Pedro Miguel	.97	3.95
La Boca	.71	2.51
Ancon	.95	2.89
Upper Chagres.		
Alhajnela	1 94	7.86

SOCIAL LIFE OF THE ZONE.

Woman's Clubs—Mason's Excursion to Taboga.

At the recent biennial meeting of the General Federation of Women's Clubs in Boston, the by-laws of that organization were changed in order to admit the delegates from the Canal Zone Federation of Women's Clubs at once. The delegates were seated with all rights before the close of the convention on June 30. Miss Helen Varick Boswell, organizer of the clubs in the Zone, in presenting the delegates gave a ten-minute talk on club conditions on the Isthmus with an outline of their purpose, and what they have accomplished. At the convention of the Zone Federation to be held at Gorgona, early in October, the morning session will be largely devoted to the reports of the delegates to the Boston biennial.

The Ancon Woman's Club met in the sun parlor of the Hotel Tivoli, July 15. The program was in charge of the home department, Mrs. H. R. Trask, chairman. Papers of interest to the homemaker were read, among them a paper on household economics read by Mrs. R. J. Burdette at the Boston biennial. Mrs. A. R. Bennett, Mrs. B. W. Payne, Mrs. C. W. Boxer, Mrs. A. H. Jenning and Mrs. H. C. Bovay, all members of the home department, assisted with the program and at the tea which followed. A feature of the afternoon was the singing of a number of cradle songs of different nations. A short business meeting was devoted to the reports of the departments. The philanthropy department is holding semi-monthly meetings on Thursdays at the residence of the chairman, Mrs. H. D. Reed. An appeal was made for books, magazines and pictures for the inmates of the insane asylum at Ancon, and for assistance and advice in the work of looking after the interest of the inmates of a home for aged people in Panama. A case was cited of a man who would be able to contribute to his own support if he could be supplied with materials and tools to carry on his own trade of shoemaking. Magazines and books for the sailors are also solicited. They may be sent to the residence of Mrs. W. L. Dozier, house 82, Ancon. The department will meet July 23, and all the members of the club are invited to be present.

The educational department is taking steps to form a committee of Ancon residents who will assist in forming a library association. A card party for the benefit of of the library fund will be held in the near future in the rooms formerly occupied as the office of the Chief Sanitary Inspector. The educational department will meet at the residence of Mrs. Jennings, on Tivoli Hill, Wednesday, July 22. The next general meeting of the club will be August 5, when the revised constitution and by-laws will be presented and the afternoon will be further devoted to discussion of the library question. Papers will be read bearing on the subject and plans will be perfected.

The Texas Whist Club has been formed in Paraiso. Its members are a group of married couples who have recently purchased property in Southern Texas with the intention of making their homes there. The club meets every week at the homes of the different members.

The celebration of St. John's day by the Masons in the Zone, which was to have taken place on June 21, and which was unavoidably postponed, will be held at Taboga Island on Sunday, August 2. A special train will leave Colon at 6 a.m. All Masons wearing badges for the occasion accompanied by their families will be received on board the special at all principal stops en route to Panama, and it is intended for the purpose of securing a complete record to take the name and number of the lodge of each Mason on the excursion. All Masons with their families are cordially invited to take part in the celebration. Ladies will take only a light basket lunch, as the heavier lunch will be provided by the committee. The steamers *Paraguas* and *Boyaca* have been chartered to carry the guests from Panama to Taboga and return, and they will receive their passengers at the American wharf at Panama.

There will be a meeting of the Pacific Masonic Club on Monday evening, July 27, at the room formerly occupied by the chief sanitary officer, over the office of the Quartermaster's Department, Ancon.

PERSONAL.

Mrs. A. B. Nichols and Miss Nichols are visiting Office Engineer A. B. Nichols of Culebra.

Major Wirt Robinson, Coast Artillery Corps, U. S. A., Captain Peter E. Traub, 13th Cavalry, and Captain Thomas W. Darrah, 27th Infantry, returned to the United States on the *Panama*, July 16.

Major William H. Johnson, 16th Infantry; Captain Wm. S. Scott, 1st Cavalry; Captain Arthur Thayer, 3d Cavalry; Captain R. H. Van Deman, 21st Infantry; Captain O. J. Charles, 17th Infantry; Captain Harvey W. Miller, 13th Infantry; Captain Matthew E. Hanna, 13th Cavalry; Captain Oliver L. Spaulding, Jr., 5th Field Artillery, and Lieutenant Martin C. Wise, 20th Infantry, sailed on the *Allianca*, July 21, and Captain C. B. Clark, 14th Infantry, will sail on the *Finance*, July 26.

Checker Players.

THE CANAL RECORD:

The undersigned would like to meet any checker player in the Canal Zone in a match of twenty games, for a suitable prize and the championship of the Isthmus. I should like to arrange for four nights' play as follows: Four games in each of the four Commission club houses and the remaining four games to be played at a place to be selected by the players. Games to be played within the next two months. This challenge is issued to all white checker players on the Isthmus.

D. E. HAYES.

Gorgona, C. Z., July 17.

Misdirected Letters

Division of Letters,
Ancon, Station A, July 22, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions have been received in the office of the Director of Posts, and may be secured on request of addressee:

Allen, C. M. (3)
B-tebemer, H.
Boslog, J. B
Brady, W. H. H.
Clark, Geo.
Cochran, Mr.
Constantmore, John
Davidson, Edward
Forse, Daniel
Geoffrion, L. E.
Jorgenson, Jens J. (2)
Keenan, Thos. J. (2)
Kratz, Mrs. A. B.
Lindsey, Robert E.
McConoughey, H. A.
McDonald, Miss Susan
McKaig, Mrs. M. E.
McKenzie, R. Clan
Morris, Sam
Moyer, Ralph N.
Sorrell, Quinton
Stolinski, Martin
Watson, Mr.
Weightman, Mrs. A. E.
Young, John C.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

July 20, 1908.

The standing of the bowling league follows:

	Played	*Won*	*Lost*	*Percent.*
Empire	15	10	5	.667
Cristobal	15	10	4	.666
Culebra	15	6	9	.400
Gorgona	15	4	11	.267

GORGONA.

A mixed chorus of thirty members was organized on Friday evening, July 10, with C. E. Jennings as director.

The local bowling league standing is as follows:

Team leaders—	*Pinfall*
Hayes	7,255
LaRose	7,072
Sprecken	7,012
Varen Kamp	6,928
MacConnaughy	6,865
Collins	6,829
Lasker	6,056
Chelf	5,155
McCormack	5,097

Scores of 200 or over for the past week were: Chelf, 255; Hinckle, 215; F. Lasker, 215; Collins, 207; R. Varenkamp, 205; Ferguson, 204.

EMPIRE.

On Monday evening, July 13, there was an "open house" for non-members, at which there was a large attendance, and several applications for membership were received. The program consisted of bowling contests, an indoor baseball game, and an orchestra concert. At the close of the evening the prizes for the one-man team bowling contest, which closed recently, were awarded as follows: First, high average, Frank F. Dougherty; second, winner of contest, J. V. McKimsey; third, second high average, Perry Brown; fourth, second place in contest, L. Levy; fifth high score, J. A. Shaughnessy.

A new junior class of the boys in Empire was organized on Tuesday afternoon, July 14, with the following officers: President, Alvin Brown, vice-president Victor Johnson; secretary, Cyril Brown. Meetings of the boys' classes will be held Monday, Wednesday and Friday afternoons.

Empire won from Gorgona at bowling on the Empire alleys, Saturday evening, July 18, by a score of 2 to 1; team pin fall as follows: Empire 804, 759, 792; Gorgona 745, 858, 714.

The Empire Y. M. C. A. executive council held its first meeting of the new fiscal year on Friday evening, July 17, and organized as follows: Mr. W. O. Johnson was elected chairman, and Mr. J. F. McTyier, secretary. The other members are Messrs. A. S. Zinn, F. W. Miracle, and W. W. Warwick.

A class for bible study and discussion was recently organized with fifteen members. The officers are: Mr. R. Rainwater, president; Mr. F. W. Potts, secretary; and Mr. J. F. McTyier, leader. The class will meet every Wednesday evening at 7.30 o'clock. A hospital committee was formed among the members for the purpose of visiting the sick and distributing reading matter.

A primary Spanish class of twenty members was organized on Monday evening, July 13, with Mr. F. H. Sheibley as instructor, and will meet on Monday and Thursday evenings at 7.30 o'clock. All men wishing to enter the class should register at once.

Concert

By the I. C. C. Band at Gorgona, C. Z., Sunday, July 26, at 2.30 p. m.:

PROGRAM.

1 March..............*New Colonial*.............Hall
2 Selection..........*The Soul Kiss*.............Levi
3 Waltz..............*Idle Hours*...............Wood
4 { *a* Intermezzo.....*Merry Widow*...........Lehar
  { *b* Tone poem......*Lilacs*..................Roberts
5 Piccolo solo.......*The Wren Polka*......Damare

OLIVER KIMBALL

6 Medley selection...*When You Know You're Not Forgotten*........Hager
7 Morceau characteristic...........*Dawn of Love*..........Bendix
8 Overture...........*Poet and Peasant*.........Suppe
9 Descriptive........*The Racket at Gilligan's*.................DeWitt

Synopsis—The guests gather at Gilligan's; after their arrival Gilligan sings a song, which is followed by a country dance. The star singer then renders a touching ballad, after which the bagpipes strike up "Are ye's all ready?" shouts Gilligan "Yis" "Then fire away." A regular "welt the floor" and "slip" time follows. A sand jig comes next, and the festivities are completed by all singing "Saint Patrick's Day in the Morning."

10 March.............*Colossus of Columbia*.............Alexander

CHAS. E. JENNINGS, *Musical Director*.

The next concert will be given at Hotel Tivoli on August 2.

CANAL WORK FOR JUNE.

Monthly Report of the Chairman to the Secretary of War.

July 15, 1908.

The Honorable, the Secretary of War,
Washington, D. C.

Sir: I have the honor to submit the following report of operations on the Isthmus for the month of June, 1908:

Department of Construction and Engineering.

CULEBRA DIVISION.

During the month of June the total amount of material excavated in this division was 1,134,032 cubic yards, an increase of 173,192 cubic yards. Of the total amount excavated, 1,099,068 cubic yards were removed from the Canal prism and 34,964 cubic yards from the Obispo Diversion.

For comparison with the work performed during the corresponding month of the previous year, the following table has been prepared:

Period.	Total amount of material excavated by steam shovels	Classification of material		Av. No. of steam shovels working during month	W'k'g days in m'th	Av. amount excavated per steam shovel per month	Av. amount excavated per steam shovel per day
		Rock	Earth				
	cu. yds.	%	%			*cu. yds.*	*cu. yds.*
1907 June.	624,586	66	34	38.28	25	16,311	652
1908 June.	1,134,032	75	25	42.92	26	26,422	1,016

Rainfall during month: 1907, 14.18 inches; 1903, 9.99 inches.

It will be seen from the preceding table that the total excavation by steam shovels in the Culebra Division, during the month of June, 1908, was about 82 per cent greater than the amount for the corresponding month in 1907; the average number of steam shovels working in June, 1908, was about 12 per cent greater than in June, 1907; and the average output per shovel per day was about 56 per cent greater. The rainfall in June, 1907, was about 42 per cent greater than in June, 1908.

The drilling during the month amounted to 215,899 linear feet, and 216.25 tons of explosives were used. One channeling machine was at work 24 days at Bas Obispo, accomplishing 3,375 square feet of channeling. The output of the rock crusher at the same place was 10,738 cubic yards. The total amount of new track laid was 10.65 miles, and of old track removed 6.78 miles. A daily average of 6,008 laborers were employed, an increase of 469 over the preceding month.

CHAGRES DIVISION.

The total amount of material excavated in this division during the month was 327,333 cubic yards, of which 322,145 cubic yards were taken from the Canal prism. The average output per shovel per day was 1,026 cubic yards. The rainfall during the month at San Pablo was 9.89 inches.

Drilling during the month amounted to 29,487 linear feet, and 59.89 tons of explosives were used. The total amount of new track laid was 2.25 miles, and of old track removed 1.68 miles. The average number of laborers employed daily was 2,065, an increase in the labor force of 203 as compared with the month of May.

COLON DIVISION.

The dredging work in this division was prosecuted during the month by four dredges, all of which worked in the Canal prism, their excavation records being shown in the following table:

Dredges	*Material*	*Amount, place measurement*
French ladder No. 6	soft	126,184 cu. yds.
French ladder No. 1	soft	107,198 cu. yds.
Sea-going suction *Ancon*	soft	332,817 cu. yds.
Dipper *Mindi*	soft	6,550 cu. yds
Total		572,749 cu yds.

The 16-inch suction dredge was used from about the middle of the month to fill in land south of Folks River, to provide a building site for a market and corral, excavating 2,700 cubic yards. The dipper dredge *Chagres* performed work for the Panama railroad during the month at Pier No 1, and excavated 7,250 cubic yards. Two steam shovels continued work in the Mindi hills during the month, excavating 33,022 cubic yards.

GATUN LOCKS.

Six steam shovels worked during the month at the site of the locks and cableways, excavating 143,295 cubic yards. Borings in connection with lock location were completed.

PORTO BELLO.

The clearing of the reservoir site was completed, and valves, pipe line and house connections installed. The reservoir has been partly filled several times and flushed out through the 24-inch drain. On June 30, the water elevation was 85. At the site of the power plant 3,650 cubic yards of rock were removed and placed in the fill at the dock. About 500 feet of track were laid on the dock and on the fills east and west of it. Two boilers were partially assembled.

At Nombre de Dios, explorations were continued for determining the sand deposit. Seventy-seven holes were bored, amounting to 2,629 linear feet. The rainfall for the month at Porto Bello was 17.07 inches.

GATUN DAM AND SPILLWAY.

Three shovels were engaged on this work throughout the month and excavated 101,656 cubic yards. Approximately 16,235 cubic yards of Bas Obispo rock were dumped on the south toe of the dam. Work on the dam and spillway included, also, the driving of wooden and steel piling, drilling, digging of test pits and work in connection with seepage tests.

Two pipe line dredges worked during the month, excavating 16,833 cubic yards. Construction work on dredge No. 85 continued satisfactorily. The rainfall at Gatun for the month was 13.33 inches.

LA BOCA DIVISION.

Three dredges were engaged on the work in this division, all of which operated in the Canal prism. The total excavation was 656,621 cubic yards, as shown in the following table.

Dredges	*Material*	*Amount, place measurement*
Sea-going suction *Culebra*	soft	371,625 cu. yds.
French ladder *Gopher*	soft	145,560 cu. yds.
French ladder No. 14	soft	139,435 cu. yds.
Total		656,621 cu. yds.

Work was continued on Cardenas Hill, and 14,630 cubic yards of material were excavated by the one steam shovel at work, the material being used in building the dyke line which is to serve as a retaining wall for dredged material.

MIRAFLORES LOCKS AND DAMS.

During the month 75,223 cubic yards were excavated, of which 68,691 cubic yards were at Miraflores and the remainder at Pedro Miguel for the installation of tracks.

The work of preparing the ground for yards and shops at the base of Cocoli Hill was continued, and at the close of the month the construction of the buildings had been begun. The work of stripping the Miraflores dam site was continued and has practically reached a point where steam shovels can be put to work excavating for the core of the dam.

RELOCATION OF PANAMA RAILROAD.

During the month 9,860 cubic yards were excavated on the relocated line, and 137,170 cubic yards placed in embankments. The total excavation to date is 487,824 cubic yards, with a total of 2,055,001 cubic yards placed in embankments. Between Gamboa and a point opposite Juan Grande, 1,170 linear feet of trestle were driven. This completes the trestles from Station 1210-54 to Gamboa. Riveting on bridge No. 309, across the Chagres at Gamboa, is 88 per cent completed.

The two 20-foot by 24-foot arch culverts at Pedro Miguel and Caimatillo rivers have been completed. A total of 3,204 cubic yards of concrete has been placed in the arch at Pedro Miguel River, and 3,915 cubic yards of concrete at Caimatillo River. At Station 1184-62 a 24-inch galvanized iron culvert 140 feet long was placed, 29 cubic yards of concrete also being used.

The work of excavating the Miraflores tunnel is 93 per cent completed, 3,420 cubic yards of material having been removed during the month.

One thousand one hundred and seventy feet of permanent track were laid, making a total of 36,749 feet to date. The force of laborers engaged on this work during the month averaged 878 men.

DIVISION OF MUNICIPAL ENGINEERING.

The usual work of this division in connection with the maintenance of waterworks, sewers, and roads, was continued during the month.

MECHANICAL DIVISION.

The usual work was performed in this division in connection with the erection and repair of all classes of equipment, electric wiring and installation at various points, and the manufacture of patterns, castings, etc. The new La Boca air line is about 90 per cent completed. The installation of oil storage tanks and pipe lines at Gorgona, Las Cascadas, Rio Grande, and Empire is progressing satisfactorily. The erection of the five hundred 12-yard Oliver dump cars has been completed, and these cars are now all in service.

DIVISION OF BUILDING CONSTRUCTION.

During the month this division completed 41 items of construction, including 1 commissary, 3 hospital buildings, 4 storehouses, 2 jails, 1 office building, 1 gymnasium, 1 corral, 2 standard laborers' barracks, 1 mareograph house, 7 type 14 houses, and 1 of each of types 17, 18, 20, and 21, and a number of smaller buildings. Repairs were made to 134 buildings. Three buildings received alterations and two buildings were demolished.

DIVISION OF METEOROLOGY AND RIVER HYDRAULICS.

The usual observations and measurements were continued during the month. The mean maximum temperature for the month was 93 degrees at Ancon, 90 degrees at Bas Obispo and 87 degrees at Cristobal. The total evaporation was 3.046 inches at Ancon, 3.415 inches at Bas Obispo and 3.184 inches at Cristobal. The June rainfall was generally deficient, but at Bohio 20.02 inches was reported, which is the greatest amount recorded at that station in any June since 1895.

Department of Labor, Quarters and Subsistence.

During the month there were 335 additions to the gold force and 301 separations. There were brought to the Isthmus 215 European laborers and 590 West Indians. The following is a comparative statement of labor forces for April, May, and June, the figures showing the number actually at work on the last day of each month:

	June	*May*	*April*
Europeans.	4,913	4,962	5,366
West Indians	16,078	16,074	15,802

During the month the construction of the following family quarters was authorized: Cristobal, 4 type 14; Gatun, 6 type 14; Gorgona, 5 type 14; Culebra, 1 type 17; Corozal, 2 type 17, 2 type 14; Ancon, 3 type 14; Empire, 4 type 14; Pedro Miguel, 2 type 14; Caimito Mulato, 1 type 14. When these buildings have been completed, the pressure for family quarters that now exists will be relieved to a very large extent.

The subsistence operations for the month of June show a profit of $991.08 as compared with a loss of $4,708.65 in the month of May.

Department of Civil Administration.

COURTS.

Three civil cases were disposed of in the Supreme Court during the month; in the circuit courts 15 civil cases and 37 criminal cases were heard and disposed of; and in the district courts 62 civil and 602 criminal cases were tried and settled.

REVENUES DEPARTMENT.

The usual business of this department was transacted, embracing all matters in connection with the postal service, lands, collection of customs, internal revenues, miscellaneous collections and the administration of estates. Eighteen vessels entered at and 21 cleared from the port of Ancon during June, and 14 vessels entered at and 14 cleared from the port of Cristobal. Under authority of the Commission, 63 licenses for the sale of liquor at retail in the Canal Zone, during the fiscal year beginning July 1, were issued.

POLICE DEPARTMENT.

During the month 573 arrests were made, an increase of 69 over the number of arrests made in May. Two homicides were reported and the persons supposed to be responsible for the crimes are under arrest and held for trial on the charge of murder. Eighteen persons were committed to the penitentiary and 9 were discharged. At the close of the month 108 persons remained in confinement. Of the 9 persons discharged, 3 were deported from the Canal Zone.

The coroner held 15 inquests during the month. In seven cases death was found due to railroad accidents, four cases to accidental drowning and three cases to lightning. The three deaths due to lightning occurred at different places and on separate days.

DIVISION OF PUBLIC WORKS.

The average daily consumption of water in Panama and Colon during the month was 954,000 gallons and 498,069 gallons, respectively, showing a slight increase in both cities. The bills rendered in the city of Panama for water consumed during the quarter ended June 30, amount to $16,582.75 net. As the amount guaranteed by the Panama Government is $16,400 quarterly, that Government will not be called upon to make good any deficit for the quarter just ended, and will have its water for fire protection, street cleaning and other public purposes without charge.

In Colon, on account of the delay in completing the installation of plumbing in private houses, the bills rendered against private consumers do not yield as yet the amount guaranteed by the Government, which is $17,500 quarterly, and a deficit will accordingly remain to be met. The bills in Colon for the quarter just ended aggregate $13,255.10 net.

The revenues derived from the public markets amounted to $408.47 during the month. A new market building has been practically completed at Las Cascadas and will be ready for occupancy early in July.

FIRE DEPARTMENT.

There were only three fires during the month, none of which resulted in serious loss. One of these three fires was due to carelessness in handling a lamp in quarters, and another to similar carelessness with a candle. Mention is made of these instances, as illustrating the advisability of providing electric lights in quarters wherever practicable, which is the Commission's present policy.

DIVISION OF SCHOOLS.

The enrolment in the white schools for June was 460 as compared with 498 in May; in the colored schools, 1,256 as compared with 1,342 in the preceding month. The decrease in the enrolment in the white schools is explained by the absence of many families in the United States on vacation during the early summer months. The schools were closed on June 26, and there is every reason to believe that the work during the past school year has been efficiently conducted, and parents who have returned to the States report that the progress made in the schools on the Isthmus compares most favorably with the work done in similar grades in the United States.

Sanitary Department.

The health report for the month of June shows that the annual death rate per thousand for white employes was 19.84 as compared with 21.05 for the corresponding month of 1907. The rate for black employes in June, 1908, was 9.46 as compared with 29.96 in June, 1907. The rate for all employes, white and black combined, was 12.35 in June, 1908, as compared with 27.53 in June, 1907. In the city of Panama, the annual death rate per thousand, based on the figures for 1908, was 44.90 as against 36.86 for June, 1907. This increased death rate is probably due to the fact that the rainy season this year is about a month earlier than in 1907.

Attention is especially invited to the improvement in the death rate of colored employes over the rate for the corresponding season of the previous year. This is due in a large measure to the general sanitary improvements on the Isthmus, and doubtless to a great extent, also, to the better food, better bedding and clothing afforded the laboring classes, together with their gradual adaptation to their new environments on the Isthmus.

There were 47 deaths among employes, 21 of which were due to accidental violence. The decrease in the number of deaths from malaria, typhoid fever and pneumonia, as compared with June, 1907, is noticeable and gratifying. Two deaths from hydrophobia occurred among the Panamanians during the month, these being the first deaths from this disease, so far as can be ascertained, that have ever been reported on the Isthmus of Panama. During the month no quarantinable diseases of any kind have been reported.

Respectfully,

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Proposals for Firewood.

Sealed proposals will be received at the office of W. G. Tubby, Purchasing Agent on the Isthmus for the Isthmian Canal Commission, Cristobal, C. Z., until 3.30 p. m., Wednesday, July 29, 1908, at which time they will be opened in public, for the sale to the Isthmian Canal Commission of 500 cords of firewood (mangle salado preferred), four feet long, split to convenient sizes for firing locomotives, 128 cubic feet to each cord. Bidders must be able to deliver at the rate of at least 200 cords per month. Delivery will be accepted f. o. b. cars on any side track of the Panama Railroad Company, or piled on ground, convenient for loading, not more than 30 feet from a side track, or not more than two feet below, or four feet above grade, between Colon and Corozal. Bidders should state kind of wood they propose to furnish, giving earliest date of first delivery and submit certified check, money order or cash in the amount of $25, United States currency, as evidence of responsibility and ability to carry out the provisions of the contract.

June Police Report.

The June report of the Chief of Police of the Canal Zone shows an increase in the number of arrests for the month, 573 having been made in June, as compared with 504 in May. Of the 573 persons arrested 520 were men and 53 were women. There were 49 different offenses, and 45 different nationalities were represented. They were divided among the towns of the Zone as follows: Ancon, 13; Las Sabanas, 2; La Boca, 35; Corozal, 3; Miraflores, 6; Pedro Miguel, 11; Paraiso, 19; Culebra, 36; Empire, 82; Las Cascadas, 26; Bas Obispo, 10; Gorgona, 79; San Pablo, 4; Tabernilla, 19; Bohio, 10; Gatun, 73; Cristobal, 145; total, 573.

There were 156 prisoners in the district jails on June 30, an increase of 12 for the month. The number of convicts at the Zone penitentiary on June 30 was 108, an increase of 9 for the month. The value of the work performed by the convicts on roads, etc., was $1,606.65. The total effective police force on June 30 was 152, and the June pay roll amounted to $16,045.48. The coroner held inquests on 15 cases of accidental deaths, 4 deaths being due to drowning, 7 to railroad accidents and 3 to lightning strokes.

M. M. McKenzie, of Gatun, committed suicide July 13. He was 45 years of age, and had lived on the Isthmus since July, 1904, coming here from Cushing, Okla. He is survived by a sister, Mrs. Flora Green, living in Portland, Me.

EXECUTIVE ORDERS.

Amendment to Code of Civil Procedure.

By authority of the President of the United States, it is ordered:

That Section 321 of the Code of Civil Procedure of the Canal Zone, in force under order of the President of March 22, 1907, be and the same hereby is, amended by the addition thereto of the following:

"Provided that the signature of the chief judge or presiding magistrate to a judicial record from the Republic of Panama shall be authenticated by the Secretary of Foreign Relations of the Republic of Panama, whose signature shall in turn be authenticated by the Chief Executive of the Canal Zone."

LUKE E. WRIGHT,
Secretary of War.

WAR DEPARTMENT,
Washington, D. C., July 3, 1908.

General Purchasing Officer.

Capt. F. C. Boggs, Corps of Engineers, is appointed General Purchasing Officer of the Isthmian Canal Commission, under the supervision of the Chief of Engineers of the U. S. Army, and Chief of the Washington Office of the Isthmian Canal Commission, to take effect upon the departure for the Isthmus of Panama of Lieut.-Col. H. F. Hodges, Corps of Engineers, the present General Purchasing Officer and Chief of Office.

By direction of the President:

LUKE E. WRIGHT,
Secretary of War.

WAR DEPARTMENT,
Washington, D. C. July 6, 1908.

OFFICIAL CIRCULARS.

Percentages for Surcharges.

CIRCULAR NO. 169:

Effective July 1, 1908, the following percentages of surcharges will be added in all cases where labor is furnished between divisions, and where labor and material are furnished for individuals and companies:

BETWEEN DEPARTMENTS AND DIVISIONS.

Shop work (including work done by all shops, excepting regular repairs to equipment by Mechanical Division), 30 per cent. on labor.

Labor, with machinery, 30 per cent. on labor.

Labor, without machinery, 10 per cent. on labor.

BETWEEN THE I. C. C. AND P. R. R.

Shop work, 30 per cent. on labor.

Labor, with machinery, 30 per cent. on labor.

Labor, without machinery, 10 per cent. on labor.

Material, with or without labor, 20 per cent. on material.

FOR INDIVIDUALS AND COMPANIES.

Shop work, (including work done by all shops), 50 per cent. on labor.

Labor, with machinery, 50 per cent. on labor.

Labor, without machinery, 10 per cent. on labor.

Material, with or without labor, 20 per cent on material.

The percentages of surcharges in connection with work in the Printing Office, and work in connection with regular repairs to equipment by the Mechanical Division, remain unchanged.

All other instructions heretofore issued regarding the percentages of surcharges are hereby revoked.

GEO. W. GOETHALS,
Chairman.

Culebra, June 30, 1908.

Assignment of Duties.

CIRCULAR NO. 183C:

Effective July 16, 1908, with the approval of the Secretary of War, the following duties, assigned, by Executive Order dated January 6, 1908, to the Department of Labor, Quarters and Subsistence, are hereby transferred as indicated below:

"The keeping of the personal records of employes; * * * and the operation of Commission hotels and mess-houses."

The personal records of employes of the Isthmian Canal Commission will be kept in the Chairman's office under the immediate direction of the Assistant to the Chairman.

For the purpose of operating Commission hotels, messes and kitchens, the Subsistence Department of the Isthmian Canal Commission is hereby created.

Maj. Eugene T. Wilson is appointed Subsistence Officer with headquarters at Culebra.

The Panama railroad commissaries and allied plants are hereby transferred from the jurisdiction of the General Manager to that of the President of the Panama Railroad Company, and will be operated on account of the Railroad company by the Subsistence Department of the Isthmian Canal Commission.

GEO. W. GOETHALS,
Chairman.

Culebra, July 14, 1908.

Quartermaster's Department of the Isthmian Canal Commission.

CIRCULAR NO. 183D.

Effective July 16, 1908, in accordance with the modifications of Executive Order dated January 6, 1908, announced in Circular No. 183C from this office, the title of the Department of Labor, Quarters and Subsistence is hereby changed to the Quartermaster's Department of the Isthmian Canal Commission.

Maj. Carroll A. Devol is appointed Chief Quartermaster, with headquarters at Culebra.

Lieut. R. E. Wood is appointed Assistant Chief Quartermaster.

GEO. W. GOETHALS,
Chairman.

Culebra, July 14, 1908.

Department of Municipal Engineering, Building Construction, and Motive Power and Machinery Abolished.

CIRCULAR NO. 183E.

Effective August 1, 1908: The following modifications will be made in the Department of Construction and Engineering:

The Department of Municipal Engineering, Building Construction, and Motive Power and Machinery will be abolished.

The Divisions of Municipal Engineering and Building Construction will be abolished.

The work formerly done by the Division of Municipal Engineering will be performed by the division engineers of the Atlantic, Central, and Pacific divisions. The assistant engineers, their records and working forces located within the territorial limits of this division, will be transferred to the respective division engineers. The records of the Ancon office will be forwarded to the Chief Engineer's office at Culebra.

The work formerly performed by the Division of Building Construction will be done by the division engineers and the Chief Quartermaster; all minor repairs to existing buildings, when the total cost of such repairs does not exceed $200, will be done by the Quartermaster's department, and all other work will be performed by the Atlantic, Central, and Pacific divisions. The superintendents, their records and working forces located within the territorial limits of these divisions, will be transferred to the respective division engineers. The Master Builder's records will be forwarded to the Chief Engineer's office.

The numbering of all buildings will be done under the direction of the Chief Quartermaster.

The construction of new buildings will be recommended by the Chief Quartermaster and authorized by the Chairman; their location will be determined by the Chief Quartermaster after consultation with the division engineer concerned and a representative of the Department of Sanitation.

All plans for additions, alterations and new work of municipal engineering and building construction will be submitted to this office for approval.

The drafting force of the Master Builder's office will be transferred to the Chief Engineer's office.

The Office Engineer will prescribe the necessary blank forms for cost keeping hereafter to be used in cost keeping of all municipal engineering. The cost keeping for building operations will conform to methods now in use.

The Superintendent of Motive Power and Machinery will report to the Chief Engineer direct.

GEO. W. GOETHALS
Chairman and Chief Engineer.

Culebra, July 21, 1908.

Vacancies to be Reported.

CIRCULAR NO. 189:

Heads of Departments and Divisions will keep the Chief Quartermaster advised of vacancies existing on work under their charge, so that applicants for reinstatement may be sent to them for interviews.

This information should be furnished the Chief Quartermaster in a letter at the close of every business day during which it is found that vacancies in the ranks of employes exist.

These communications will not be considered by the Chief Quartermaster as requisitions for the obtainment of employes from the United States unless it is so stated specifically, and will be used only as a guide in furnishing information to applicants on the Isthmus eligible for reinstatement, or for transfer in cases of reduction of force.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, July 20, 1908.

Chief Clerk Department of Civil Administration.

CIRCULAR NO. 77:

George A. Ninas is, effective this date, appointed Chief Clerk of the Department of Civil Administration, vice John K. Baxter transferred to the Office of the Chairman of the Commission.

JO C. S. BLACKBURN,
Head of Department of Civil Administration.

Ancon, July 16, 1908.

Acting Chief Clerk Examination of Accounts.

Effective July 11, 1908, H. A. A. Smith will act as Chief Clerk, Department of Examination of Accounts, during the absence of W. D. Mabry, Chief Clerk, on leave.

W. W. WARWICK,
Examiner of Accounts.

Empire, C. Z., July 10, 1908.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week beginning July 22:

DAIRY PRODUCTS.

		Price
Butter, prints, prime quality	per lb	35
Cheese—Cream, Phila	each	22
Neufchatel	each	6
Roquefort	per lb	45
Young America	per lb	22
Swiss	per lb	33
Gouda	per lb	34
Edam	each	1.05
Camembert	per lb	28
McLaren's	per jar	15
Pinxter's	per tin	22
Buttermilk	bottle	15

FRUITS AND VEGETABLES.

Pineapples	each	15
Limes	hundred	70
Lemons	dozen	18
Rhubarb	per lb	6
White potatoes	per lb	3½
Cabbage	per lb	3½
Corn	dozen	30
Onions	per lb	4½
Sweet potatoes	per lb	2½
Yams	per lb	3½

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§ Sold only from cold-storage and not from Commissaries.

NEW ARTICLES.

		Price.
Half hose, black, gray and tan	pair	1.10
Half hose, cotton	pair	35
Shirts, C'ermont	each	3.00
Hose, tan	pair	45
Hose, black	pair	50
Wash goods	yard from 13c to	36
Desks, typewriter, golden oak	each	33.40
Matresses, double, Ostermoor	each	18.00
Plates, shirred egg, 1 port	each	10
Plates shirred egg, 1 port	each	15
Cups and saucers, white	pair	15
Plates, dinner, white, 9-inch	each	10
Pitchers, water 2-qt, light	each	60
Shades, electric light	each	35
Marshmallows, Jacobs, 1-lb tins	tin	50
Smith's Glasgow smoking mixture, ¼-lb. tin		25
Desks, single, flat top, 6x3-ft	each	55.25
Desks, double, 5x4 ft. 3-in	each	73.50
Embroideries edgings and insertions, yard.,		9 to 20
Allover embroidery	yard	30
Needle cases, Mitrailleuse	each	10
Cotton, darning, black, tan and white	spool	3
Buttons, pearl	dozen	16
Drawers, cotton	pair,	85 and 70
Corset covers, cotton	each,	85 and $1.25
Undershirts	each	40
Shoes, ladies', tan, oxf	pair	3.25
Shoes, misses, gun metal blu., bal	pair	1.80
Shoes, child's, gun metal, blu., bal	pair	1.20

UNCLAIMED PACKAGES.

The following is a list of packages that have been forwarded from New York to Isthmian Canal Commission and Panama railroad employes, and that are waiting to be claimed at the freight house at Colon. Applications of claimants should be made through the freight agent, P. E. Crutchley. The owners of these packages will have to make application for free customs entry in connection with Circular No. 85, or in the alternative, pay duty to the Panama Government customs on the value of the contents of the packages, before delivery can be effected.

	Charges to collect.
Way-bill No. 229—M. M. Barnett, Cristobal, 1 package motor parts, *ex Allianca:* June 19, 1908	$ 2.85
Way-bill No. 187—C. G. Letts, Colon, 1 package, *ex Panama:* March 2, 1908	1.00
Way-bill No. 153—G. H. Beldon, Cristobal, 1 package books, *ex Finance:* December 26, 1907	3.25
Way-bill No. 203—J. E. Johnson, Culebra or La Boca, 1 box tobacco, *ex Esperanza:* April 13, 1908	1.00
Way-bill. No. 195—J. R. McCann, Culebra, 1 package cement, *ex Advance;* March 25, 1908	1.00
Way-bill No. 153—H. A. Yierman, Gorgona, 1 package, *ex Finance;* December 26, 1907	1.00
Way-bill No. 229—Rev. H. B. Bryan, Ancon, 1 box books, *ex Allianca;* June 19, 1908	1.00
Way.bill No. 235—Rev. H. B. Bryan, Ancon, 1 package breaks (presumably books), *ex Panama;* July 9, 1908	1.00
Way-bill No. 235½—John Burke, Cristobal, 1 package, *ex Panama;* July 9, 1908	1.00
Way-bill No. 201—C. E. Weidman, Cristobal, 1 case hats, *ex Finance;* April 9, 1908	1.00
Way-bill No. 235—Capt. M. J. Henson, tug *Marmet*, Cristobal or Colon, 1 package, *ex Advance;* July 6, 1908	1.00
Way-bill No 233—J. R. Frost, Colon, 1 package, *ex Esperanza:* June 30, 1908	1.00
Way-bill No. 205—R. B. Smith, Cristobal, 1 package rubber goods, *ex Advance:* April 20, 1908	1.00
Way-bill No. 235—Frank Gwelfi, Empire, 1 package, *ex Advance;* July 6, 1908	1.00
Way-bill No. 205—A. R. Dametrius, Ancon, 1 package, *ex Advance*. April 20, 1908	1.00
Way-bill No. 189—Isaiah Shirley, Ancon, 1 box drugs; *ex Allianca:* March 9, 1908	1.00
Way-bill No. 229—Chas. A. Elliott, Cristobal, 1 package guitar, *ex Allianca:* June 9, 1908	50
Way-bill No. 235—W. S. Clements, Colon, 1 box, *ex Advance*, July 6, 1908	1.00
Way-bill No. 235—Capt. H. W. Stickle, Cristobal, 1 bag fish net *ex Advance;* July 6, 1908	1.00
Way-bill No. 207—P. G. Baker, Colon, 1 case, *ex Panama:* April 24, 1908	1.00
Way-bill No. 229—Geronimo Borserini, Cristobal (or Gorgona), 1 box, *ex Allianca;* June 19, 1908	1.00
Way-bill No. 207—Louis Betz, Cristobal, 1 box personal effects, *ex Panama;* April 24, 1908	1.00
Way-bill No. 165—Jas. Vaughn (or Vaugher), Culebra, 1 box, *ex Dunottar Castle;* January 15, 1908	1.00
Way-bill No. 233—D. A. Solomon, Matachin, 1 box sewing machine, *ex Esperanza;* June 30, 1908	3.00
Way-bill No. 111—S. G. M., Cristobal, 1 box hardware, *ex Advance;* August 25, 1907	1.00
Way-bill No. 211—Miss Inger Miller, Ancon, 1 box groceries, *ex Finance;* May 5, 1908	1.00
Way-bill No. 235½—Dr. F. Chystin, Ancon hospital, 1 crate baby carriage, *ex Panama;* July 9, 1908	3.00
Way-bill No. 227—John H. Dunn, Culebra, 1 box seeds, *ex Panama;* June 14, 1903	3.25
Way-bill No. 235—Fernier Mohtero, Panama, 2 cases instrument boxes, *ex Advance;* July 6, 1908	3.50
Way-bill No. 89—J. H. Higgins, Cristobal, 2 cases picture machinery, *ex Colon;* June 29, 1907	3.00
Way-bill No. 239—Joe T. Dempsey, Cristobal, 1 box cloth, *ex Allianca;* July 15, 1908	1.00
Way-bill No. 239—J. Z. W. Gelizean, Las Cascadas, 1 box seeds, 1 box carb. acid, 1 sack food, 1 sack shells and 1 box sewing machine, *ex Allianca;* July 15, 1908	3.76
No. 7232—J. W. Foulks, Colon, 1 parcel, *ex Dunottar Castle;* September 30, 1907	prepaid
No. 7503—J. V. Sadler, Pedro Miguel, 1 parcel, *ex Finance;* March 14, 1908	prepaid
No. 7321—J. M. Chumacero, Colon, 1 parcel, *ex Dunottar Castle;* November 24, 1907	prepaid
No. 7724—Neal Thomas, Cristobal, 1 parcel, *ex Panama;* July 9, 1908	prepaid
No. 7723—N. D. Wallman, care I. C. C., Cristobal, 1 parcel, *ex Panama;* July 9, 1908	prepaid
No. 7656—S. Chenalloy, Colon, 1 parcel, *ex Advance;* June 10, 1908	prepaid
No. 7720—A. Hinslemann, Colon, 1 parcel, *ex Panama:* July 9, 1908	prepaid
No. 7573—Mayer Unterberg, Panama, 1 parcel, *ex Esperanza;* April 13, 1908	prepaid
No. 7622—Frederick White, Cristobal, 1 parcel, *ex Advance;* May 16, 1908	prepaid
No. 7728—Irvin & Thomas, Cristobal, 1 parcel, *ex Allianca;* July 15, 1908	prepaid

PANAMA RAILROAD COMPANY
TIME TABLE No. 1
IN EFFECT MARCH 1st, 1908

SOUTH BOUND				MAIN LINE		NORTH BOUND			
No 7 Pass.	No. 5 Pass.	No. 3 Pass.	Distance from Colon.	*S Stop* *F Flag Station*	Distance from Panama.	No. 2 Pass.	No. 4 Pass.	No. 6 Pass.	No. 8 Pass.
Daily	Daily	Daily		STATIONS		Daily	Daily	Daily	Daily
Leave	Leave	Leave	Miles		Miles	Arrive	Arrive	Arrive	Arrive
P. M	A. M.	A. M				A. M.	P. M.	P. M.	P. M
4.35	10.30	5.30	.00	† COLON	47.58	9.05	1.00	3.50	8.00
s 4.37	s 10.33	s 5.32	0.42	Cristobal	47.16	s 9.03	s 12.57	s 3.47	s 7.57
s 4 43	f 10.37	s 5.38	1.90	Mount Hope	45.68	s **8.58**	12.53	3.42	s 7.52
f 4.48	10.43	f 5.44	4.52	Mindi	43.06	f 8.50	f 12.46	f 3.35	f 7.45
s 4.55	s 10.50	s 5.50	7.08	Gatun	40.50	s 8.43	s 12.40	s 3.30	s **7.40**
f 5.03	f 11.00	5.58	10.68	Lion Hill	36.90	8.33	f 12.30	3.19	f 7.29
f 5.08	f 11.06	6.03	12.75	Ahorca Lagarto	34.83	8.27	f 12.24	3.13	f 7.22
s 5.15	s 11.13	s 6.10	15.52	† Bohio	32.06	s 8.20	s 12.17	s 3.05	s 7.15
s 5.23	s 11.22	6.18	18.75	† Frijoles	28.83	s 8.10	f 12.08	2.58	s 7.06
							P. M.		
s 5.31	s 11.31	s 6.26	21.62	Tabernilla	25.96	s 8.03	s 11.58	s 2.50	s 6.58
5.35	11.35	6.30	22.84	Barbacoas	24.74	8.00	11.54	2.47	6.55
s 5.37	s 11 37	s 6.32	23.56	San Pablo	24.02	s 7.58	s 11.52	s 2.46	s 6.53
f 5.40	f 11.40	6.35	24.57	Bailamonos	23.01	7.54	f 11.48	2.43	f 6.53
s 5.45	s 11.45	s 6.40	26.02	† Mamei	21.56	s 7.50	s 11.45	2.40	f 6.47
s 5.53	s 11.53	s 6.49	28.53	† Gorgona	19.05	s 7.41	s 11.37	s 2.32	s 6.37
s 5.58	s 11 58	s 6.54	29.90	† Matachin	17.68	s 7.36	s 11.32	2.27	s 6.32
	P. M.								
s 6.03	s 12.03	s 6.59	31.26	Bas Obispo	16.32	s 7.32	s 11.27	s 2.23	s 6.27
s 6.09	s 12.09	s 7.05	32.83	Las Cascadas	14.75	s 7.26	s 11.20	s 2.17	s 6.21
s 6.17	s 12.17	s 7.14	35.18	† Empire	12.40	s 7.17	s 11.13	s 2.10	s 6.14
s 6.22	s 12.22	s 7.19	36.18	Culebra	11.40	s 7.10	11.08	s 2.00	s 6.10
6 30	12.30	7 26	39.04	Cucaracha	8.54	7.00	10.57	1.51	5.57
s 6.32	s 12.32	s 7.28	39.78	Paraiso	7.80	s 6.58	f 10.56	1.50	f 5.56
s 6.37	s 12.38	s **7.31**	40.72	Pedro Miguel	6.86	s 6.54	s 10.52	s 1.48	s 5.52
s 6.42	s 12.43	s 7 35	42.08	Miraflores	5.50	s 6.50	s 10.48	f 1.44	s 5.48
s 6.50	s 12.50	s 7.40	44.55	† Corozal	3.03	s 6.43	s 10.40	s 1.38	s 5.40
6.55	12.56	7.45	46.75	† La Boca Junction	0.83	6.38	10.33	1.32	5.33
7.00	1.00	7 50	47.58	† PANAMA	00	6.35	10.30	1.30	5.30
P. M. Arrive	P. M. Arrive	A. M. Arrive		† *Telegraph Stations.*		A. M. Leave	A. M. Leave	P. M. Leave	P. M. Leave

MOVEMENT OF OCEAN VESSELS.

The following is a list of the sailings of the Panama Railroad Steamship Company, of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON.

Esperanza	P. R.R.	Saturday	July 18
Pr. Aug. Wilhelm	H.-A.	Saturday	July 18
Colon	P. R.R.	Thursday	July 23
Prinz Sigismund	H.-A.	Friday	July 24
Clyde	R-M.	Saturday	July 25
Advance	P. R.R.	Tuesday	July 28
Prinz Joachim	H.-A.	Saturday	Aug. 1
Allianca	P. R.R.	Monday	Aug. 3
Finance	P. R.R.	Friday	Aug. 7
Pr. Eitel Friedrich	H.-A.	Friday	Aug. 7
Trent	R.-M.	Saturday	Aug. 8
Panama	P. R.R.	Wednesday	Aug. 12
Pr. Aug. Wilhelm	H.-A.	Saturday	Aug. 15
Advance	P. R.R.	Monday	Aug. 17
Prinz Sigismund	H.-A.	Friday	Aug. 21
Colon	P. R.R.	Saturday	Aug. 22
Tagus	R.-M.	Saturday	Aug. 22
Allianca	P. R.R.	Thursday	Aug. 27
Prinz Joachim	H.-A.	Saturday	Aug. 29

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston enroute to Colon.

FROM COLON TO NEW YORK.

Finance	P. R.R.	Sunday	July 26
Trent	R.-M.	Tuesday	July 28
Esperanza	P. R.R.	Friday	July 31
Pr. Aug. Wilhelm	H.-A.	Tuesday	Aug. 4
Colon	P. R.R.	Wednesday	Aug. 5
Advance	P. R.R.	Monday	Aug. 10
Tagus	R.M.	Tuesday	Aug. 11
Allianca	P. R.R.	Saturday	Aug. 15
Prinz Joachim	H.-A.	Tuesday	Aug. 18
Finance	P. R.R.	Thursday	Aug. 20
Panama	P. R.R.	Tuesday	Aug. 25
Magdalena	R. M.	Tuesday	Aug. 25
Advance	P. R.R.	Sunday	Aug. 30
Pr. Aug. Wilhelm	H.-A.	Tuesday	Sept. 1
Colon	P. R.R.	Friday	Sept. 4
Orinoco	R.-M.	Tuesday	Sept. 8
Allianca	P. R.R.	Wednesday	Sept. 9

FROM NEW ORLEANS TO COLON.

Harry T. Inge	U.F.C.	Saturday	July 18
Ellis	U.F.C.	Saturday	July 25

FROM COLON TO NEW ORLEANS.

Harry T. Inge	U.F.C.	Tuesday	July 28
Ellis	U.F.C.	Tuesday	Aug. 4

FROM COLON TO BARBADOS, CALLING AT TRINIDAD.

Clyde	R.-M.	Tuesday	Aug. 8
Trent	R.-M.	Tuesday	Aug. 14
Tagus	R.-M.	Tuesday	Sept. 1

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company dispatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan ports, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: and *Jamaica*" about July 27.

The steamship *San Jose*, from San Francisco, arrived at La Boca on July 16. Recent departures from La Boca were: July 12, U. S. S. *Albany*, for Central America; July 14, *Ecuador*, for Buenaventura; July 15, *Limari*, for Valparaiso; July 16, *Acapulco*, for San Francisco.

The steamship *Enfield* left Fernandina, Fla., on July 17, loaded with lumber, bridge timbers, tie plugs, etc., for the Isthmian Canal Commission, and should arrive at Cristobal about July 25.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, JULY 29, 1908. No. 48.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Change in Relocation of Panama Railroad.

To avoid crossing the Gatuncillo valley between Gatun and Tiger Hill, the relocated line of the Panama railroad has been changed between Gatun and Frijoles.

When it was decided to build a dam at Gatun it became necessary to change the location of the Panama railroad, because in places the present line will be under water from 30 to 80 feet when the Canal is completed. It was proposed to have the relocated line, as decided upon in March, 1907, cross the Gatuncillo valley at Gatun on an embankment 82 feet high and 1¼ miles long. In this valley the water in Gatun lake will be over 80 feet deep. Borings developed the fact that the foundations for the embankment would be on a 20-foot stratum of clay overlying a bed of silt so soft in places that the wash drill sank through it at the rate of 20 feet in five minutes. In several places the drill went down 300 feet before striking rock.

As the carrying power of the clay is about two tons to the square foot it was not considered feasible to impose on it the burden of an embankment that alone would weight it three and one half tons to the square foot. The embankment plan was therefore abandoned, and a steel viaduct was considered. The initial cost of this viaduct would be over $800,000, and as from 60 to 70 feet of the framework would be under water on the completion of Gatun Dam, the cost of maintenance would be prohibitive.

The line as now determined will leave the relocated line at Gatun and run east along the north side of the Gatuncillo valley to within about two miles of the Canal Zone boundary. From this point it will turn south across Gatun lake, touching several islands that will be formed by the lake, and joining the relocated line at Frijoles. The new location will cross the Gatuncillo valley on a fill of less magnitude and on a better foundation, and also will do away with some curvature. The saving in money is estimated at $781,000, distributed as follows:

Items—	*First location.*	*New location*
Grading	$1,555,000	$1,667,000
Trestles	213,000	207,000
Permanent track construction	118,000	124,000
Connection tracks	18,000	....
Bascule bridge	75,000	75,000
Viaduct—Gatuncillo valley	830,000	....
Bridges and culverts	220,000	125,000
Length, at $50 per foot	2,955,000	3,100,000
Total curvature at $150 per degree	179,000	79,000
Rise and fall	2,000	8,000
Total	$6,165,000	$5,385,000

Further surveys are being made on the relocated line with the idea of eliminating curvature and of lessening the distance from Colon to the entrance of Culebra Cut.

New Dumps for Central Division.

Construction trains hauling spoil from Culebra Cut north of Empire have begun to use the relocated line of the Panama railroad from Bas Obispo to Juan Grande. This has been made possible by the completion of the bridge across the Chagres at Gamboa. From the bridge to Juan Grande, a distance of 3½ miles the road is finished, and work was begun last week on the two-mile link that will join it with the spur that already has been built from the north side of Barbacoas bridge on the present line of the railroad to the relocated line at Mamei. Seventy-five per cent of the new line between Gamboa bridge and Juan Grande runs over trestles, and about the same proportion of the two-mile connecting link will be trestle. Filling in these trestles opens up a short haul dump for spoil from Culebra Cut. With the trestle fills and the dumps that will be opened alongside, it is estimated that from seven to ten million cubic yards of material can be disposed of. At present about seventy-five trains daily run over the main line of the railroad from Culebra Cut to the dumps at Tabernilla and Mamei, and a like number of "empties" come back, making the number of trains actually using the tracks about one hundred and fifty. Of this one hundred and fifty not over thirty will be taken from the main line while the fill is being made on the trestles, but after the dumps are fully developed it is believed that half the trains from the Cut can be run over Gamboa bridge to the new dumping grounds.

Depth of Black Swamp.

Four soundings made in the Black Swamp recently establish the fact that there is a rock bottom over one hundred feet below the surface. The soundings were made with a wash drill and at intervals of one hundred feet. In one place rock was struck 113 feet below the surface. This swamp is a bed of silt and water between Lion Hill and Ahorca Lagarto, and the Panama railroad crosses it for a distance of three thousand feet. At various times trouble has been experienced in maintaining a track at this point, and since the American occupation the worst part has been bridged with a trestle 550 feet long, supported on piles. The south end of this bridge showed signs of settling a few weeks ago, and sixty-foot piles are being driven to reinforce the shorter piling put down last September.

Heavy Showers in Culebra Cut.

Heavy rainfalls toward the close of the month slightly impeded operations in the Central and Pacific divisions. At Culebra on July 24, three inches of rain fell between 1.52 and 3.25 o'clock in the afternoon, and during this period 1.6 inches fell in 15 minutes. In Culebra Cut the rain so wet the ground around the shovels and overflowed the tracks that work was suspended for several hours. By Saturday noon, however, all the shovels were at work again and the trains were moving as usual. On the afternoon of July 27, 3.43 inches of rain fell at Empire between 1.30 and 3 o'clock and 3.33 inches at Culebra. Work in the Cut was practically suspended during the afternoon, except such as was done in preparing the tracks and shovels for the following day. These showers are among the heaviest recorded on the Isthmus. On October 16, 1907, 1.5 inches fell in 15 minutes at Culebra, but the total shower was not so great as the one on July 24.

Concentration of Subsistence Operations.

The Commission hotels, European laborers' messes, and common laborers' mess kitchens will be run hereafter in correlation with one another; and to this end they are being placed under chief stewards who will report direct to the Subsistence Officer. Those so far appointed and their assignments are:

W. H. Van Fleet, chief steward Culebra district, including Culebra hotel, European laborers' mess No 62, and common laborers' kitchens Nos. 25 and 26, Rio Grande.

Carl L. Vanderheurk, chief steward Empire district, including Empire hotel, European laborers' mess No. 60 at Cerro, and common laborers' kitchens Nos. 22 and 24 at Cunette and Lirio, respectively.

G. F. Grosse, chief steward Gorgona district, including Gorgona hotel, European laborers' messes No. 53 at Juan Grande and No. 70 at Jamaicatown, and common laborers' kitchens No. 15 at Caballo Viejo, No. 16 at Jamaicatown, Nos. 12 and 40 at Mamei.

H. G. E. Schreiber, chief steward Gatun district, including Gatun hotels Nos. 1 and 2, European laborers' messes Nos. 51 and 68 at Gatun, common laborers' kitchens Nos. 7 and 44 at Gatun, and police mess at Gatun.

W. T. Virtue, chief steward Bas Obispo district, Bas Obispo hotel, European laborers' messes Nos. 54 and 56 at Chagres, and Haut Obispo, respectively, and common la-

NOTES OF PROGRESS.

(Continued)

borers' kitchens Nos. 18 and 20 at Chagres and Haut Obispo.

Victor Schauer, chief steward Tabernilla district, including Tabernilla hotel, European laborers' mess No. 69 at Tabernilla, and common laborers' kitchen No. 11 at Tabernilla.

E. De Senan, chief steward La Boca district, including La Boca hotel, European laborers' messes No. 66 at Ancon, and No. 67 at La Boca, and common laborers' kitchens No. 35 at La Boca, No. 34 at Ancon, and No. 49 at Culebra Island.

P. M. Scanlin, chief steward Cristobal district, including Cristobal hotel, European laborers' mess No. 72 at Cristobal, and common laborers' mess kitchens Nos. 1, 2, 3 and 4 at Colon and Cristobal.

F. A. Thompson, chief steward, San Pablo district, including San Pablo and Caimito Mulato hotels, European laborers' mess No. 71 at San Pablo, common laborers' kitchens Nos. 13 and 43, at San Pablo and Caimito Mulato, respectively.

A small economy that is now being practiced by some of the chief stewards is reducing all waste fats from the Commission hotels and messes and making them into soap. At Culebra all the soap used in the hotel and messes is being supplied from this source.

Central Division Offices.

Combining the office forces of the old Culebra and Chagres Divisions has made the offices now occupied as headquarters of the Central Division at Empire too small. As the force will be further increased August 1 by additions from the Divisions of Municipal Engineering and Building Construction, new offices are being fitted up in House No. 1, located on the hill overlooking Culebra Cut and formerly occupied as the residence of the division engineer. On the first floor will be the offices of the division engineer, assistant division engineer, superintendent of transportation, and clerical force. The resident engineer and his assistants will occupy the second floor. After August 1 the office force of the Central Division will number about fifty men. The buildings now occupied as offices will be repaired and used as family quarters.

Growth of Corozal.

The office of the Division Engineer, Pacific Division, a one-story building, situated on a rise of ground directly opposite the sanitary office; the residence of the Resident Engineer; two married quarters, type 14, accommodating four families each, and a one-family house, type 17, have been added to the group of buildings that form the hamlet of Corozal. In the course of construction are two type 17 and two type 14 married quarters; one type 18 bachelor quarters, situated near the hotel, and one building "standard design" at the rear of the hotel for the servants and helpers. The new police building, a small outpost station, will be ready for occupancy within a few days. A garage for an inspection autombile has been authorized. The reports, January 1, 1908, showed 13 married quarters occupied, and the report on July 1, gives 29 such quarters occupied. The entire population of 198 is divided, 127 men, 30 women, and 41 children. Ninety-eight men are in bachelor quarters as against 80 at the beginning of the year. Electric lights are being installed in all married quarters, bachelor quarters, offices, camps, messes, and the hotel. There will be 50 electric street lamps. The number of laborers in the camp has increased to 350 at the European laborers' mess and 120 at the West Indian mess. The Commission garden at Corozal occupies about two and a half acres and has been supplying the Commission hotels as far as Gorgona, including Ancon, with lettuce, radishes, cucumbers, string beans, and tomatoes. Green corn is now being picked and a new crop of vegetables is being planted.

Panama Railroad Quarters at Colon.

To serve as quarters for its employes four buildings are being erected by the Panama Railroad Company on the beach near the hospital in Colon. On the beach road will be two standard four-family houses, and immediately back of them will be quarters for bachelor men and bachelor women. The quarters for bachelor men will be 125 feet by 116 feet, two stories high, of frame construction, and will accommodate 76 people. In the centre of the building will be a room 60 feet square, which will be used for amusement purposes. It will extend from the ground floor to the roof with a balcony running around three sides at the second story. The living quarters will inclose this general room on three sides and, in addition to sleeping rooms, will contain a billiard room, three dry rooms, and a suite for the housekeeper and family. Porches will run around three sides of the building and will be thoroughly screened against mosquitoes.

The house for bachelor women will be about the same size and type as that for bachelor men.

Re-employment of Persons Discharged on Account of Reduction of Force.

The Chairman has directed that whenever it becomes necessary to fill vacancies in the Commission's organization, former employes discharged on account of reduction of force, whose services have been satisfactory, shall be given preference over other applicants of the same class, including applicants for reinstatement discharged for other reasons, or who voluntarily left the service. Employes discharged on account of reduction of force, who wish to benefit by this rule, must file their applications for reinstatement with the Assistant to the Chairman, who will forward lists of such preferred applicants to the Chief Quartermaster on the Isthmus and to the General Purchasing Officer in the United States.

Quarters at Bohio.

Several "married quarters" at Bohio are vacant and will be assigned to employes on the Cristobal list of applicants for quarters in the order of their standing on that list, with the understanding that the transportation between Bohio and Cristobal will be borne by the employes. An employe who accepts an assignment to quarters at Bohio will not lose his place on the Cristobal list, and he will be entitled to transfer to quarters in Cristobal when they become available in the order of his original application. Applicants on the Cristobal list who wish to occupy quarters at Bohio under these conditions should advise the District Quartermaster at Cristobal not later than August 3.

June Report of the Superintendent of Public Works.

The June report of the Superintendent of Public Works shows that three additional private connections with the water main were made in the city of Panama, twenty-five additional connections were made in the city of Colon, and five additional connections in the Canal Zone. The average daily consumption of water in Panama was 954,000 gallons, while the average daily consumption in Colon was 498,069 gallons. The consumption in Panama has increased month by month since the beginning of the calendar year, while the consumption in Colon has fallen off, due to the stoppage of leaks and to the greater care in the use of water by private consumers. Very little work has been required in Panama for the maintenance of the water and sewer system. In Colon there were six stoppages of the sewer system which were removed, and sixteen leaks in galvanized iron water pipes due to corrosion. The corroded iron pipes have been replaced by lead pipes.

Two Hundred Additional Dump Cars.

It is purposed to purchase two hundred additional dump cars, made necessary by the desire to hasten work at Pedro Miguel and Miraflores, and on the relocation of the Panama railroad.

Examination for Clerk.

A local examination for the position of clerk in the service of the Isthmian Canal Commission will be held Sunday, September 13, 1908. The exact hour and place of the examination will be announced later. Copies of the Manual of Examinations, containing all necessary information and sample questions, and copies of the prescribed application form, will be furnished upon written request by the Secretary of the Isthmian Civil Service Board, Office of the Chairman, Culebra, Canal Zone.

The examination is open to citizens of the United States between the ages of 20 and 45 years. Persons intending to enter the examination should file their applications at once, in order that requisition may be made for sufficient papers and other necessary arrangements completed by the Board of Examiners.

Examination for Medical Corps, U. S. A.

Under date of July 14, 1908, the War Department at Washington has issued an order that specially constituted boards of medical officers meet at various specified places on August 3, for the purpose of conducting the preliminary examination of applicants for appointment to the Medical Corps of the Army. For the Isthmus of Panama the examination will be held at Ancon, under the direction of Major Champ C. McCulloch, Jr., Captain Robert E. Noble, and Captain Alexander Murray, all of the Medical Corps.

Three steel barges arrived at Cristobal Monday, July 20, in tow of the tug *M. E. Luckenbach*. They left Newport News July 6, and helped to pay their passage to the Isthmus by carrying 300 tons of coal each. They will be used in the stone and sand service between Porto Bello and Gatun.

COMMISSION GARDENS.

Experiments With Fruits, Flowers and Vegetables.

The Commission truck and landscape gardens undertaken for experimental purposes in 1905 have become established features of the Canal Zone. Three gardens are under cultivation, one each at Ancon, Corozal, and Empire, and are being operated with good results and satisfactory output. At the Empire garden, which is the largest, an extension of six acres is being inclosed which will increase the area under cultivation to eleven acres. A fourth garden is contemplated for Pedro Miguel. The experimental garden at Ancon, which covers about one and a half acres, was the first started and has been operated about three years. This is especially for the cultivation and propagation of decorative plants for landscape gardening, although experiments are constantly being made with vegetables, fruits and other plants of economic value.

The ground is improved by fertilizing with stable manure and worked the year round, different crops being planted in rotation. The gardens are irrigated by a system of galvanized iron pipes with 53 faucets for hose attachment, placed at distances of 75 to 100 feet apart which practically precludes waste of water.

The enemies to plant life in the tropics, insects and fungus diseases are treated with successful results. As fungicides, Bordeaux mixture is used and for the extermination of leaf-eating insects arsenate of lead and paris green. Ants are killed by destroying their fermicaries with carbon bisulphide which is set on fire and explodes subterraneously, the poisonous fumes suffocating them, and by burning them at night with asbestos torches, when they travel along their well beaten paths. Tobacco is also used as an insecticide.

The work divides itself into periods of wet and dry seasons. The results of work in the truck gardens are not so good during the wet season, while practically all the landscape gardening is done at that time. Seedlings and cuttings are propagated on "benches" these being shaded with canopies of cheese cloth or palm leaves. The stanchions are kept saturated with crude oil, or placed in vessels filled with oil, as preventive against leaf-cutting ants. Sand is used for some of the seedlings and cuttings, as they root better in sand than in the soil.

Some of the experiments in growing the products of the temperate climate are interesting and promising. Nicaraguan strawberries are cultivated with good results for the small bed. The plants grow to a good size and the berries are firm and sweet. Asparagus has been successfully grown. California navel and Florida oranges are cultivated. A young navel tree is a persistent bloomer and the young fruit is small but promising. California "Mission" and "cluster" figs are among the recent products, also the native Java and Malay plum and Muscadine grapes, cucumbers, sweet potatoes and beans are easily grown.

Among the experiments of the year which have been successful is the growing of native spinach, which under cultivation improves greatly both in texture and flavor. There are several thousand tomato plants, including forty-five of the best American varieties, under cultivation. These are crossed with native varieties, the object being to obtain a plant that will yield large firm fruit and is resistant to moisture. The crossings and processes are carefully listed and registered, and the plant from which the best results are obtained will be the plant permanently grown during the wet months in the Commission gardens for table use.

In an entirely different way the native egg plant is used as a stock on which to bud or graft the American variety, the latter varieties being subject to a fungus root disease which is eliminated by the grafting process. Experiments are being made with vanilla. The seeds are sown on blotting paper placed in a "Wardian case" on soft moss which is kept moist from below. Some specimens of native vanilla are being sent to the government experimental stations at Miami, Florida, and Mayaguez, Porto Rico. The garden has specimens of East India bamboo and efforts will be made to cultivate it here for its economic value; as also the hat palm, and the sisal hemp, a native of Mexico, which is the most valuable fibre plant in existence. The introduction of the eucalyptus trees on the Isthmus was tried by the French without success, there remaining only a few out of the large number they imported from Australia. A white eucalyptus, introduced last year from the botanical gardens in Java, is doing well. Native fruits grown in the garden are the mango, including several East Indian varieties, papaya, avocado and the better varieties of banana. The mangostoon is perhaps the most important experimental subject of the gardens. A large number of native and exotic plants of brilliant foliage are grown for decorative purposes. Some of these, as the crotons, both French and English varieties, are grown from plants left by the French. Of these there are about twelve different kinds in cultivation for landscape gardens around commission quarters. The foliage plant, acalypha, was also brought to the Isthmus by the French. Two tree ferns brought from the jungle, are being grown for interior decoration. They are about nine feet high and the new fronds are putting out splendidly. Balsam apples, raised from the seed, are specially grown for trellis and small gardens. Florida crepe myrtle and reseda, or *Dame del Noche*, a native flowering bush which takes its name from its strong night perfume, are planted in all the gardens. The California bougainvilla and the oleander grow satisfactorily. Native rubber trees are experimented with and there are a number of the Para and Assam rubber plants. Ferns from the jungle when cultivated grow to enormous size and the fronds acquire a rich glossy green.

Roses of the tea and hybrid tea varieties are cultivated with more satisfaction than any others, though it is possible to grow other strains. Some of the best varieties for this climate are the American Beauty, Killarney, Duchess de Brabant, Franciska Krueger, Kaiserin Augusta Victoria, Manan Cochet and, when budded on a strong growing stock, the Marechal Niel. The principal blooming season is May and June, although roses will flower throughout the year.

Landscape gardens supplied with plants grown in the experimental gardens are in front of the Tivoli, and around the Commission quarters in Ancon and La Boca. Additional gardens are to be laid out. In Culebra they will be in all the open places before the public buildings.

The truck gardens at Corozal and Empire have produced good crops since they were started, including string, wax and lima beans, cucumbers, radishes, tomatoes, lettuce, parsley, celery and native corn, which is improved by cultivation, but does not fill out as well as corn in the States. The gardens have supplied the Commission hotels including the Tivoli, La Boca and others along the line as far as Gorgona with fresh vegetables. Crops are constantly being planted in rotation, in both gardens. The Empire addition will be used either for the cultivation of tropical fruits or for vegetables. A number of plants are being prepared for shipment to the leper settlement at Palo Seco, these include among others breadfruits, gamboga tree, a species of Chinese litchi, ginep, kela, avocadoes, and Surinam cherries.

Plants and seedlings are supplied from the Agricultural Department at Washington and other Government stations, and exchanges are frequently made.

OFFICIAL CIRCULARS.

Acting General Manager.

PANAMA RAILROAD COMPANY AND
PANAMA RAILROAD STEAMSHIP LINE.
Colon, R. P., July 20, 1908

TO ALL CONCERNED: During the absence of the General Manager, Mr. G. E. Geer will be Acting General Manager.

HIRAM J. SLIFER,
General Manager.

Approved:
GEO. W. GOETHALS,
President.

Mess Kits.

OFFICE OF THE DISBURSING OFFICER
Empire, C. Z., July 21, 1908.

CIRCULAR NO. 45.

To All Concerned: Effective at once: Mess kits will be issued by the stewards at the various kitchens only upon presentation of a meal ticket with the words "mess kit" written or printed across the face of it, which will be good for a mess kit only. The value of such ticket to be deducted from laborer's pay in same manner as meal tickets.

EDWARD J. WILLIAMS,
Disbursing Officer

Approved:
GEO. W. GOETHALS,
Chairman and Chief Engineer.

Pay for Meritorious Sick Leave.

HEADS OF DEPARTMENTS AND DIVISIONS:

Hereafter it will be necessary to forward to this office only three copies of recommendation for pay for meritorious sick leave, Form 140 C. E., instead of four copies, as heretofore.

By direction of the Chairman.

C. A. MCILVAINE,
Acting Assistant to the Chairman.

Culebra, July 24, 1908.

The Lobnitz subaqueous rock crusher, for use in the channel at the Pacific end of the Canal, has arrived from Renfrew, Scotland, and will be assembled at La Boca.

Such progress has been made on the construction of the highway from Mount Hope to Gatun, that the convict camp has been moved from Brazos Brook to Gatun.

SOCIAL LIFE OF THE ZONE.

Women's Clubs and Other Features.

A called meeting of the Gorgona Woman's club was held on Thursday, July 23, for the purpose of arranging matters regarding club work. The chairmen of the various departments were instructed to prepare a schedule of meetings for the period of six months, dating from the meeting. Reports of the work then in hand will be made by each department at the next business meeting which will be held on August 6, at which time the president of the Canal Zone Federation, Mrs. Lorin C. Collins will be the guest of the club. The regular business meetings of the club begin on the last Thursday in August. After this the Musical and Literary Department will have charge of the meetings on the first Tuesday in each month; the Home, Art and Educational Departments will have charge of the meeting the third Tuesday. Preparations for an entertainment to be given by the club in the near future were made.

Nine names were presented for membership at the meeting on Thursday.

Mrs. Frank Morrison has issued an invitation to the club members and other residents of Gorgona, for a tea at her residence on July 30. The affair is given in honor of her sister, Mrs. Guy Ament, of Texas, who is her guest for the summer.

The meeting of the Las Cascadas Woman's Club, July 23, was called to order by the president, Mrs. O. G. Randall. A new feature introduced was the singing of the National hymn by the members at the opening of the meeting. The usual club business was disposed of, two new members being admitted. This brings the membership list up to 36. Several interesting topics were taken up for discussion. The meeting closed with a "threading needles" contest, the prize being awarded to Mrs. T. C. Williamson, who accomplished the threading of 84 needles of all sizes in five minutes.

The Philanthropy department of the Ancon Woman's Club met at the residence of the chairman, Mrs. H. D. Reed, July 23. The department is devoting special attention to work of charitable nature. Wearing apparel, either new or worn, if in order to be of service, is solicited for distribution among the needy. Such garments, and also reading matter, may be left at the residence of Mrs. W. L. Dozier, House 82, Ancon. Sewing for the poor will be one of the subsequent features of the work of this department.

During the absence of the chairman of the department, Mrs. H. D. Reed, who has left for three months' visit to the States, the work of the department will be in the hands of Mrs. R. W. Fenn, at whose residence the next meeting will be held, Thursday afternoon, July 30, at 2 o'clock.

St. Luke's Guild, Ancon, will hold its next regular meeting at the residence of Mrs. R. C. Noble, August 3. At the last meeting, July 20, Mrs. Pelham Bates tendered her resignation as secretary, owing to her departure in September for permanent residence in the States. Miss Laura Carter was appointed Secretary *pro tem.*

A card party for the benefit of the Ancon Public Library is to be given by the Woman's club on the evening of August 6. The rooms over the offices of the District Quartermaster have been secured for the occasion and successive entertainments are now in contemplation. The rooms will be decorated and furnished with tables for twenty-five or more players. Handsome prizes will be awarded and other attractive features are promised.

A reception will be given by the Goethals Garrison, No. 106, Army and Navy Union, Tuesday evening, August 4 at Kangaroo hall, Empire, for Comrades and invited friends. The affair will be on the order of a modernized camp fire, and there will be entertainment, stories, dancing and light refreshments.

The United Fruit Company, through its freight and passenger agent, P. H. McCormick, has issued invitations for an inspection of the new 5,000-ton steamship *Cartago*, which is expected to arrive at Colon about August 7.

Excursion to Taboga Island.

A special train will leave Cristobal Sunday morning, August 2, at 6 o'clock, to carry white Masons and their families to Panama, en route to Taboga Island. The train will stop at Gatun, Tabernilla, San Pablo, Gorgona, Bas Obispo, Las Cascadas, Empire, Culebra, Paraiso, Pedro Miguel, and Corozal. On the return trip the train will leave Panama at 6 p. m. The necessary badges may be procured from Messrs. Garske of Gatun, Stevens of Gorgona, Fields of Las Cascadas, Brown of Empire, Woods of Culebra, Johnson of Paraiso, or Stiles of Ancon.

Letter from Former Employe.

THE CANAL RECORD:

Perhaps the boys would like to hear from Broadway, the "Old Timers" I mean, those fellows who have struck since Wallace and Magoon's time. Things are different now and were different last fall when I left there. I remember when I first struck the Isthmus and went to Culebra, I had a tent for my quarters and slept on the ground, and water—well, I had to walk half a mile to get some, and for breakfast it was cold potatoes and black coffee, not a sign of an egg. My, how things have changed since then.

I ran across one of these "Old Timers" on Broadway the other day, "I see you are still wearing that old watch charm of 'Spigoty' money," casually remarked my friend. "Yes, that 'Spigoty' charm has a certain sentiment that far exceeds its intrinsic value," I replied. Then we had a long chat about the old days on the Canal, and we both wondered if we were going to get a button.

I saw by the last CANAL RECORD in the Public Library that they were going to pass out some buttons. Now, I sincerely hope that the "Old Timers" will not be forgotten, and those of us who are back in the United States would certainly appreciate a button.

NORMAN E. WINNIE.

New York City, June 18, 1908.

Church Notices.

Archdeacon Bryan will hold services at the Court House at Cristobal every Sunday evening at 8 o'clock. Beginning August 2, the Sunday evening service at St. Mary's Mission, Empire, will be held at the Court House instead of at Kangaroo's Hall.

PERSONAL.

H. J. Slifer, general manager of the Panama Railroad Company went to the States on July 21 on his annual leave.

Major James P. Jervey, Corps of Engineers, U. S. A., arrived on the *Esperanza* July 24, and has been appointed assistant engineer in charge of the construction of the locks at Gatun. Major Jervey was born in Virgina, November 14, 1869, and was appointed to the Military Academy at West Point from Georgia, entering in 1888.

Maj. John H. Russell and Lieut. C. B. Matthews of the U. S. Marine Corps, who have been stationed at Camp Elliott during the past year, returned to the States on the *Finance*, July 26. Among the other passengers were Mrs. H. D. Reed of Ancon, and Capt. C. B. Clark, 14th Infantry, U. S. A.

Mr. Richard Reid Rogers, General Counsel for the Isthmian Canal Commission and Panama Railroad Company, who has been on the Isthmus since May 6, returned to the States on the *Finance*, July 26.

Mr. Henry V. Garland, Superintendent of Palo Seco Leper Asylum, sailed on the *Finance* July 26, on a four months' trip to New Zealand. During his absence he will visit the leper colony at Molokai, near Honolulu, maintained by the Board of Health of Hawaii.

M. A. Follman, secretary to the Chief of the Division of Material and Supplies, is in the States on his leave.

Among the arrivals on the *Esperanza*, July 24, were Mrs. C. A. Devol and two daughters; Archdeacon Bryan of Ancon, wife, two daughters and son; W. M. Wood, chief clerk of the Disbursing Office, wife and infant; Dr. W. Brem, Jr., and family of Colon hospital; and Dr. C. G. Hayes of Corozal.

Gladys Evelyn Bliss and Walter Thomas Haynie were married at the home of the bride's brother, Gerald D. Bliss in Pedro Miguel on July 22. Mrs. Haynie was a teacher in the school at Pedro Miguel and Mr. Haynie occupies a clerical position in the office of the Chairman of the Commission. Mr. and Mrs. Haynie will make their home in Culebra.

Obituary.

Marion M. Hammond, wife of E. D. Hammond, died at her home in Cristobal on July 12, from chronic nephritis. She was born in the United States, was 51 years of age, and had lived on the Isthmus one year. She is survived by her husband, three daughters and one son. Her remains were taken to her home in Tarrytown, N. Y., for interment.

Thomas Cuniff died at Cristobal, July 24, from malaria. He was born in Bath, Me., 52 years ago, and had resided on the Isthmus eighteen months.

George W. Hillyer will learn something of interest and of benefit to him by communicating with Frank F. Hillyer, attorney-at-law, Atlanta, Ga.

The old French scrap rail which has been picked up along the line of the Canal and stored at Empire now amounts to 1,050 tons.

COMMISSION HOSPITAL SERVICE.

Ancon Hospital.

I.

Ancon Hospital is located on a reservation of about 80 acres on the northern slope of Ancon Hill, and commands an extensive view of Panama bay and the surrounding mountains. It is the largest hospital in the Canal Zone. It takes practically all the surgical and medical cases in the territory south of Tabernilla, and also receives many patients from the city of Panama and from the quarantine station at the Pacific end of the Canal. In the reservation are 96 buildings, most of which are of frame construction and thoroughly screened, a number of them being located on terraces built by the French. Among them are 18 quarters for married employes, 4 quarters for nurses, 1 large building for bachelors, 47 wards in 32 buildings, and a chapel for Roman Catholics with a priest's house adjoining. A chapel for Protestants has been authorized. The Canal Zone insane asylum, is located on the reservation, is under the supervision of the Superintendent of the Hospital, and has eight buildings in a separate enclosure. There are also an admitting office, administration building, Board of Health laboratory, laundry, kitchens and mess houses, servants' quarters, storehouses, and buildings of minor importance.

The hospital proper was established by the old French Company, which erected the first building in 1883, and laid out and graded the grounds. The hospital was operated under a contract, in accordance with whose terms people engaged on Canal construction were treated at the rate of five francs ($1.00 gold) per day. As a result of this system very few negro employes were sent to the hospital, and the patients were almost entirely white employes. The old French Company failed in 1889, but left a complete set of records in the hospital, which show that from 1883 to 1889 over five thousand deaths occurred at the hospital, twelve hundred of which were from yellow fever. The old yellow fever ward was known as the "St. Charles," and is the present Ward 16, used for white woman patients. It is believed that more people died from yellow fever in this building than in any other now standing in the world. Under the Old French Company the hospital was well equipped and excellent care was taken of the patients.

During the regime of the New French Company the hospital was turned over to the Sisters of Charity who took care of the few patients sent in at a fixed charge. As the revenue from the patients was not large, the Sisters had a hard struggle to make ends meet and had to eke out their income by selling vegetables, fruits, flowers, and other products raised on the hospital grounds.

When the Americans took charge in May, 1904, the present Ward No. 7 was the only one used for Canal employes. Wards 11 and 12 were an orphan asylum, and the present quarters for nurses were known as the "Strangers Hospital," and were occupied largely by patients from the city of Panama. Major Louis A. LaGarde, Medical Corps, U. S. A., was appointed superintendent, and work was at once begun in clearing up the grounds, and repairing the buildings. Most of the buildings were in a fair state of preservation, and not more than $50,000 were spent in putting them in a habitable condition. Patients were received immediately, as a staff of physicians and three nurses had been brought from the States.

Major John L. Phillips, Medical Department, U. S. A., has been Superintendent since August 1, 1905. In his office is centered the entire administration of the hospital, including, in addition to the regular hospital work, the keeping of all records connected with the institution, the assignment of personnel and the inspection of buildings and grounds. The office force consists of a chief clerk, timekeeper, general storekeeper, commissary, quartermaster, superintendent of laundry, and a number of assistants, clerks, messengers and laborers. The hospital has a staff of twenty-five physicians, and a corps of about seventy-five trained woman nurses and seven male nurses, the number varying with the needs of the service. A Protestant and a Roman Catholic chaplain are in attendance on the patients, and perform such duties pertaining to their calling as the Superintendent may direct which includes committal services over the bodies of all patients who die in the hospital.

In the admitting office at the gate of the hospital is a male nurse, under bond to return money and other valuables left in his charge, for which a receipt is given, and who keeps a record of all persons admitted. He is also in charge of the ambulances (United States Army standard) which meet every passenger train at the Panama railroad station. A special ambulance with rubber tires is used for very sick and surgical cases, to carry patients between the wards and operating rooms, and to bring in patients within a radius of two miles of the grounds. The admitting office is connected by long distance telephone with all offices in the Canal Zone and connected by local telephone with all of the wards.

Of the 47 wards 23 are for medical cases, 8 surgical, 3 eye and ear, one tubercular, one isolation, and 11 insane. The wards are divided into sections of two wards each with a building between, in which are the kitchen, dining room, linen room and a room for the personal effects of patients. The ward equipment includes white enamel iron beds (United States Army standard) with hair mattresses, hair and feather pillows, white enamel iron bedside tables with glass tops, medicine closets, linen closets, nurses' desk and chairs, and each ward is provided with lavatories, closets, shower and tub baths.

The tubercular ward is a two-story building with wide verandas. It has a capacity of about twenty-five beds with four private rooms for special cases. The isolation building is a separate structure of six private rooms and two small wards, with baths, linen rooms and diet kitchens. In a small adjoining building is a morgue, with a special room for the sterilization of all infected clothing.

All the medicines, solutions, and disinfectants used in the wards, are prepared in the hospital drug store by the chief druggist and his two assistants. The quinine tonic used for prophylactic purposes in the Canal Zone is also prepared there.

The eye and ear section is in charge of the oculist and aurist, and has three wards, one each for American, European and colored patients. A central building contains an office with a dark room communicating, a dressing room, two dining rooms and a diet kitchen. This section is provided with modern appliances for examining and treating diseases of the eye, ear, nose, and throat.

The operating room is under the direction of the chief of the surgical clinic, and is in charge of a trained nurse who has the care of instruments, sterilization of dressings, and preparation of solutions. It has a concrete floor and a floor space of 1,400 square feet, and is well lighted from two sides and by a skylight. The equipment is thoroughly modern and complete, comprising operating tables, instrument cases, dressing and solution cases, and white enamel sinks. In the same building are a surgeon's office, dressing room, sterilizing room connected with a central steam plant, two dressing and instrument sterilizers with condensing water tanks, an anaesthetizing room, and closets for surgical dressings and appliances. In order that emergency cases may be operated on at night the surgery is provided with special electric lighting facilities, which include a large stationary light, numerous stationary 16-c. p. lights, and portable lights with reflectors. This building is easily accessible to the surgical wards, and patients are carried to and from it on hand or wheel litters. Surgical cases from private rooms in buildings farther away are carried in the rubber tired ambulance.

Near the operating room is a building containing the library of reference books and many of the current medical magazines, consulting offices, waiting rooms, office of the resident chaplain, and the X-ray laboratory, where all sciagraphs are made and cases of injury or disease examined.

On the highest point of the hospital grounds on the old La Boca road is situated the nurses' home, consisting of four buildings in which are dormitories, reading rooms, two large recreation rooms, and a library. The floor of each building is provided with modern lavatories and bath rooms. A ward of six beds in a small building of one of the medical sections is reserved for sick nurses, but at no time have more than two of these beds been occupied, and the ward is usually vacant.

The main kitchen is provided with a large range, a sterilizer, in which all water used in the hospital is sterilized, and a steam cooking outfit which includes coffee boilers, soup, and vegetable kettles. The ice box has a capacity of 3,000 pounds of ice and a cold storage area of about fifty square feet, where a sufficient supply of fresh meat, butter and eggs is kept to provide for any emergency that may arise. Staple supplies are delivered three times a month by the Subsistence Department of the Isthmian Canal Commission. Cold storage supplies are delivered daily.

A "gold" mess is maintained for the nurses, the white employes connected with the hospital, and other white employes living in buildings on the ground and accommodates about 150 people. It has a kitchen provided with a range, hot and cold water connections, a china closet, store room and portable refrigerator. The mess is under the direct supervision of the Superintendent who regulates the hours of meals and approves daily requisitions for supplies. A mess for silver employes is served from the main kitchen.

Such stores as are necessary for current use are kept in a general storehouse, which is in charge of a storekeeper who also has charge of all medical property belonging to the hospital, and issues it on approval of the Superintendent. The subsistence storehouse which adjoins the kitchen is in charge of the commissary who receives and checks all articles of subsistence furnished the hospital, makes daily issues to the kitchens and wards, and has charge of the bakery. The main linen room is in charge of a nurse who receives and reports all hospital laundry. All new linen issued from the storehouse is sent to this linen room where it is marked with the section and ward number in which it is to be used.

The dairy of 54 cows provides about 130 gallons of milk daily at a net price of about 32 cents per gallon, as against $1 a gallon paid for milk before the dairy was established. A new cow shed is being erected. The dairy is under the supervision of the quartermaster.

The hospital, including the insane asylum, has a normal capacity of 1,170 and a maximum capacity of 1,350 beds. The number of patients as shown on the daily report has varied from 375 to 730. The number of total days treatment given in April, 1908, was 17,779; in May, 19,357, and in June, 22,220. The American register of patients was begun on May 4, 1904, when 80 patients were found in the hospital and taken over. Since that time up to and including July 23, 1908, 43,243 patients have been treated.

Patients are divided as follows: Class 1, employes employed in the States; class 2, employes employed on the Isthmus or in foreign countries; class 3, Panama railroad employes; class 4, employes in private rooms; class 7, charity patients. Members of employes' families are charged $1 per day for ward treatment and $1.50 for a private room. Members of the families of employes receiving less than $50 per month are charged 30 cents per day for ward attendance. All patients sent in by the Panamanian Government are charged 75 cents per day. Employes entitled to ward treatment free, who request a private room, are charged $1.50 per day. For non-employes and their families, $2 per day is charged for ward treatments and $4 for private rooms. If a special nurse is wanted, $3 additional per day is charged, and for a special orderly, $1 per day additional. The charges for operations to non-employes vary from $5 to $300 and upward, according to the nature of the operation. No charge for operations is made to employes of the Isthmian Canal Commission or of the Panama railroad.

Misdirected Letters.

Division of Letters,
Ancon, Station A, July 29, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions have been received in the office of the Director of Posts, and may be secured on request of addressee:

Adert, Louis (2)
Baker, T. M.
Beaughber, Robert
Brumby, Dr. R. H.
Bucklin, E. C.
Clark, Arthur H.
Coppin, Mr. and Mrs. C. C.
Davies, Tom (2)
Dixon, P. C.
Dodge, Wm. J.
Fenton, Mrs. Horace P.
Flynn, Edward J.
Goldin, Mrs. Clara Myles
Hanwood, Robert
Hendricks, W. R.
Hertel, Otto A.
Huson, C. J.
Jolley, W. H.
Karner, W. J.
Kittinger, T. H.
Lasker, Frank
Latham, Rev. E. L.
Lindo, Albert
Lowe, G. C.
Madell, Jno.
Manyette, Wm. C.
Marshett, Mrs. Sarah
Mason, Wm.
Packer, Nurse Louise
Robichaux, E. J.
Rush, Frank M.
Sanger, Victor
Shumway, Frank
Smith, Homer A.
Sturdevant, P. P.
Taylor, Harry (2)
Weaver, J. M
Yoes, J. W.
Young, E. P.

ISTHMIAN MECHANICAL SHOPS.

IV.

Panama Railroad Shops at Cristobal.

Cristobal Shops, like other shops on the Isthmus, are a development of a small mechanical plant left by the French. They were opened for work by the Commission on October 1, 1904, when the old French machinery, which had been left in good condition, carefully coated with oil and white lead, was put in operation. Power was furnished by a French compound engine built in 1884, which is still doing economical service in the planing mill. From the first the plant was inadequate to the demands made on it, although its work was confined almost exclusively to repairs for the floating equipment of the Commission and the Panama Railroad Company, and to overhauling pumps and making supplies for the sewer and water systems under construction at that time. Extensive additions were begun in 1905 and, by the end of the fiscal year 1906, there had been completed a new blacksmith shop, a 9-pit erecting shop with platform and transfer table, a 6-track car erecting shed, and a wood machine shop and sawmill, while a new power plant with four boilers and two new engines had been installed.

On November 16, 1906, the plant was turned over to the Panama Railroad Company, and its principal work since then has been the maintenance of the railroad rolling stock. It also does the repair work for the shipping in Colon harbor, maintains the construction equipment for the Canal work from Gatun to the Atlantic; and operates the Brown hoist at Dock 14 in Cristobal.

All coal brought to the Isthmus is unloaded by this crane, the amount handled in the fiscal year 1908 being 360,000 tons.

In the past fiscal year the work for the Panama Railroad included the manufacture of two first-class passenger coaches, eight second-class coaches, and two baggage and mail cars, all 68 feet long; and the maintenance of 34 road engines, 26 switch engines, four special cars, 16 first-class coaches, 22 second-class coaches, three baggage coaches, five baggage and mail cars, two hospital cars, 996 box cars, three steam pile drivers, two 75-ton steam wreckers, one 25-ton crane, one 10-ton crane, and ten refrigerator cars.

New equipment erected for the Isthmian Canal Commission for the fiscal year included 164 Western dump cars of 80,000 pounds capacity, completing an order of 300 cars; two Bay City pile drivers, one Model 20 Marion steam shovel, 10 earth spreaders, thirty-five 4-yard narrow-gauge dump cars, four 25-ton Bay City cranes, three 20-ton Browning cranes, two 10-ton Bay City cranes, three hundred 40-ton wooden flat cars, five hundred 12-yard steel dump cars. Work on the maintenance of the Canal construction equipment varies from month to month. In June it included repairs on 55 locomotives and 187 cars. The work for steamships consists largely of repairs to the engines, boilers, and other machinery, and is limited more by the short time the vessels remain in port than by the capacity of the shops. Repairs amounting to $500 or over are not unusual.

On June 30, 1905, the Cristobal shops employed 313 men, of whom about one fourth were white artisans and clerks, the remainder being West Indian negroes in the helper class. The present force is 936 men, of whom 730 are in the helper class. In the shop proper are 180 "gold" and 500 "silver" employes; in the round house, 22 "gold" and 130 "silver," the latter including the crews of the switch engines; and at the coal hoist, four "gold" and 100 "silver" employes. Practically all the work is done under cover. Filtered water is supplied throughout the plant, and a wash room and latrines are located near the center of the group of buildings.

As soon as the burners can be installed and the oil supplied, crude oil will take the place of coal for fuel. At present the power plant consists of four boilers, two new compound engines, a large engine in the machine shop and a small one in the boiler shop, and an old French compound engine in the planing mill. The car shed, 400 feet by 100 feet, with seven tracks, can accommodate seventy cars, and has adjoining it a kiln and dry house. In the roundhouse are twenty stalls for locomotives, and adjoining it are twelve tracks, recently added. The erecting shed has nine pits, each with an overhead crane. The coal chute contains twenty pockets, and from fifty to sixty locomotives are supplied with coal every day. The paint shop is equipped with three tracks, on which nine cars can be handled at one time.

The blacksmith shop is 73 feet by 118 feet, and contains two steam hammers; one bolt-heading machine; one No. 1 blower, and Bradley hammer.

The machine shop is 91 feet by 116 feet, and is equipped with machinery and tools to handle all kinds of work. Included in the equipment are: One No. 2 turret lathe; one 26-inch lathe; one centering machine; one radial drill press; one horizontal boring mill; three shapers, 12, 18 and 24 inch; one triple-spindle drill press; one 12-inch drill press; one 14-inch power saw; one 36-inch vertical boring mill; two compressors, type 10; one French compound stay engine; two planers, 24 inches by 10 feet; one planer, 36 inches by 9 feet; one axle lathe; one 48-inch hydraulic press; one 48-inch wheel-boring mill; two 3-inch pipe machines; two double head bolt cutters; one triple head bolt cutter; one blower engine; one blower engine, 102 inches by 10 inches; two drill presses, 16 inch and 18 inch; one 26-inch circular sawing machine; one 30-inch slotter; one 14-inch slotter; three wheel lathes, 48, 60, and 42 or 78 inch; one 18-inch drill press; one 24-inch lathe; four 18-inch lathes; one 14-inch emery wheel frame; two lathes, 16 and 24 inch; one cylinder boring machine; one cylinder boring machine bar; one crank-pin turning machine; two valve-seat facing machines; one mortising machine; two pumps; one 6-inch spindle nut tapper; one compound Westinghouse pump; one large drill press, and one small wheel press.

The boiler shop is a new building, and is equipped with one punch and shear; one punch and shear No. 305; one roll, 12 feet by 12 inches; one stay engine; nine pairs 1-inch rollers; fifteen pairs 2-inch rollers; five pairs 1¾-inch rollers; one 5-inch roller; one 4-inch roller; two 3½-inch rollers; three 3-inch rollers; three 2½-inch rollers; eighteen sectional beading expanders, 2-inch; five large forges; eleven air-rivet forges; one hand-rivet forge; one large drill press; one small drill press; two 8-foot swinging cranes, and twenty-four air hammers.

In the tool-room are one 18-inch lathe; one 12-inch lathe; one 14-inch drill press; one No. 2 Universal grinder complete; one power hack saw; one Universal milling machine; one cold saw grinder; one twist drill grinder, and one wet tool grinder.

The mill department is equipped with machines and tools for doing all classes of wood work, including one timber sizer; one double cylinder Victor planer; one small molding machine; one automatic ripping saw; one small ripping saw; one automatic cut-off saw; one small cut-off saw; one spindle boring and mortising; one spindle horizontal boring; two Barnés saws; one scroll saw; one rip saw; one surface planer; one automatic hollow chisel; one No. 3 spindle vertical boring machine, one small rip saw, and one stay engine.

The pattern shop contains two turning lathes and one automatic engine.

The shop and roundhouse of the Panama railroad at Panama are run under the direction of the master mechanic of the Cristobal shops, P. G. Baker. They are equipped with machinery to make light repairs, and employ two "gold" and sixty "silver" men. The equipment consists of one stay engine; one planer; one Acme bolt-cutting machine; two drill presses; one portable B. S. forge; one shaping machine; one lathe; two stay boilers, and one pump.

First Stroke of the Pick at Panama.

On January 1, 1880, at the Pacific entrance of the projected ship canal, M. Ferdinand de Lesseps spoke the following words:

"By the authority of the Republic of the United States of Colombia; with the blessing of Monsignor, the Bishop of Panama; in the presence of representatives of all governments and of those of the United States of Colombia; with the assistance of the members of the technical commission charged with the investigation of the Universal Interoceanic Canal, Mlle. Ferdinand de Lesseps, on this first day of January, 1880, made the first stroke with a pick at the point determined upon for the beginning of the maritime canal on the coast of the Pacific. All of the assistants in order turned some earth with the pick, as a sign of the alliance of all peoples in the work of uniting the two oceans, for the good of mankind."

At the grand banquet which closed the fetes given by the Colombian Government in honor of M. Ferdinand de Lesseps, and, after the toast by the representative of the Republic of the United States of Colombia, M. de Lesseps responded as follows:

"The orator who has preceded me told you of the scientific reasons that have influenced us in deciding that the line of the interoceanic canal shall run from Colon-Aspinwall to Panama. The investigations of the technical committee between the Bay of Limon and the Bay of Panama, confirm this decision and at the same time constitute the base of an appeal to all the nations to contribute to the capital for doing this great work, whose benefits will be enjoyed by all peoples. But what will be the powerful motive that will give the final impulse towards forming the Universal Company for the construction and maintenance of the Panama Canal? It will be public opinion, the dominating power of our epoch, represented by the press of all countries. I propose a toast, therefore, to the reporters of the press of North America, Central America, and South America, and to their honorable brothers of Europe, Asia, and Africa.'

The well-known American correspondent, Mr. Millen, of the New York *Herald*, responded:

"I am honored in being allowed to say some words as representative of the American press, to which M. de Lesseps has been so courteous. It is a pleasure to see assembled here so many of the intelligent citizens of Colombia, to be in the company of these men of science, of capitalists, and of others who are distinguished by their talent and their deeds. But, above all, it is a satisfaction to stand in the presence of that man who has made his name immortal by his incomparable work of joining two great seas by means of the Suez Canal—a satisfaction that is increased by the idea that we are assembled here on a mission of as great importance. The canal that already proclaims the genius of M. de Lesseps is a work which will procure the immense benefits of commerce to humanity throughout the generations which have not yet seen the light of day. And here I wish to say that the magnificent steamer which has brought to this shore M. de Lesseps, his interesting family, and the corps of able engineers which accompanied him, bore a name of good augury, the name of LaFayette, faithful friend of George Washington, lover of liberty, staunch apostle of American independence.

"Faithful to his promise that the beginning of 1880 would witness the inauguration of work on the Panama Canal, we have seen M. de Lesseps begin the year with the event that will always have a bright place in the pages of history. I refer to the commencement of the survey for a route of a canal across the Isthmus, which was begun on the first of January at the mouth of the Rio Grande.

"This seems to me a most formidable enterprise, but as I am only a journalist, whose duty it is to write the facts as they are presented, and not an engineer, it would not be proper for me to speak words of criticism touching the nature and the immensity of the obstacles to be surmounted. But I may say that this is a work of immense importance to humanity, not alone in our own age, but also for the good of others who will follow us. You do not undertake this herculean task for our epoch alone, but also for posterity. That the canal is to be an international canal constitutes in itself a sure guarantee to the world that it will not be employed by any one power to the detriment of any other; and the fact that all nationalities are united at this banquet table proves the desire of the great man who is with us this evening to build a canal for the world. Therefore these old friends, the United States and fair France, join hands with the Republic of Colombia in undertaking the task so worthy of their greatest efforts.

"Let the work go on! M. de Lesseps is indeed the man who can carry it on with energy. In doing this he will add another laurel to the crown which he has already won, and at the same time he will show to the world the grand spectacle of the joining of two great oceans. In this manner will he join commercially the turbulent Atlantic and the calm waters of the great Pacific. Finally it is right to recall that the progress and welfare of our age demand a canal, whether it be here, or follow some other route.'—*Bulletin du Canal Interoceanique, February 1, 1880.*

Concert

By the I. C. C. Band at Hotel Tivoli, Sunday, August 2, at 7.30 p. m.:

PROGRAM.

1 March............*Gov. Magoon's*........Varona

Dedicated to the Hon. Charles E. Magoon, provisional governor of Cuba, formerly governor of the Canal Zone.

2 Selection...........*The Soul Kiss*............Levi

3 Morceau characteristic...........*Dawn of Love*.........Bendix

4 { *a* Interm'sso from *The Merry Widow*.......Lehar
{ *b* Tone poem......*Lilacs*.................Roberts

5 Clarinet solo.......*Somnambula*.......Thornton

JOHN GRAY

6 Medley selection...*When You're Not Forgotten*.................Hager

7 Waltz..............*Folle Extase*............Milok

8 Overture...........*Poet and Peasant*........Suppe

9 Descriptive........*The Racket at Gilligan's*.................DeWitt

Synopsis—The guests gather at Gilligan's; after their arrival Gilligan sings a song, which is followed by a country dance. The star singer then renders a touching ballad, after which the bagpipes strike up. "Are ye's all ready?" shouts Gilligan. "Yis." "Then fire away." A regular "welt the floor" and "slip" time follows. A sand jig next, and the festivities are completed by all singing "Saint Patrick's Day in the Morning."

10 Galop..............*On Horseback*...........Bendix

CHAS. E. JENNINGS, *Musical Director.*

Concerts will be given in August as follows: Culebra, August 9, at 6 p. m.; Cristobal, August 16, at 8.15 p. m.

In the month of June 204 carloads of material were received at Mount Hope store and 119 carloads at the Empire store.

Excavation in the tunnel on the line of the relocated Panama railroad at Miraflores was completed July 10. The tunnel is now being lined with concrete.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

The standing of the bowling league follows:

	Played	*Won*	*Lost*	*Percent.*
Empire	18	12	6	.666
Cristobal	18	11	7	.610
Culebra	18	7	11	.389
Gorgona	18	6	12	.333

Arrangements are being made for a bowling contest for the championship of the Isthmus, to be held at Empire Thanksgiving Day. It will be for singles and doubles. A meeting will be held in the near future to determine whether it will be "open," or for Y. M. C. A. members only.

CRISTOBAL.

The third term of the educational classes will open on Friday evening, July 31. Dr. A. J. Orenstein will teach the class in "first aid," using the course outlined by the International First Aid Association. Those successful in passing the examination will be granted the emblem and diploma of the International Association. Mr. A. A. Greeman will teach the class in Spanish. Besides the usual beginning class, there will be an advanced class in the reading of Spanish classics. Mr. H. T. Kinne will teach shorthand, using the Pitmanic system and following the course of the International Correspondence School. Mr. M. W. Fox will teach mechanical drawing for beginners, as well as advanced students. Mr. C. L. Short will teach a class in practical electricity, and will give special coaching preparatory to United States naval examination for electrician. Mr. L. E. Willson will teach the branches included in the civil service examination for clerks. This course will prepare for the examination to be held at Ancon next fall. Other classes will be organized if there are six applicants and a competent instructor can be secured.

A wrestling class has been organized, which meets every Monday nigh,t and will be a regular feature. A team will be organized from the class to meet wrestling teams from other club houses.

A gymnasium smoker will be held on Thursday evening, July 30, in honor of Mr. R. E. Gourlie, assistant secretary, who has resigned, and leaves for the States on July 31.

On Saturday evening, August 1, there will be an exhibition chess game, when Mr. Geo. H. Wolbrecht will play all comers simultaneously.

GORGONA.

Gorgona defeated Cristobal in a bowling match at Gorgona on July 25, by the following scores: Gorgona, 824, 826, 741. Cristobal, 714, 813, 773. High scores: Wolf, 232, Collins, 202; Fiske, 195.

A handicap pool tournament has begun. About sixteen have entered, and each man is to meet every other player, handicaps being arranged according to the ability of the players.

Interest is very strong in the wrestling club. The new wrestling mat has arrived, and the club, under the leadership of Mr. Drexel, will resume lessons this week.

EMPIRE.

Great interest is shown in the duck-pin tournament, which started Thursday, July 23, with thirty-one entries. Bardelson is high man to date, with a score of 105.

Gold and silver medals will be given to the five highest men, as follows: First prize, highest average; second prize, greatest number of games; third prize, second highest average; fourth prize, second greatest number of games; fifth prize, highest individual score.

Rainfall, July 1 to 25, 1908, Inclusive.

(MIDNIGHT TO MIDNIGHT.)

Stations.	Maximum in one day.	Total.
Atlantic Slope.		
Cristobal	2.06	12.09
Brazos Brook	3.40	15.33
Gatun	3.46	12.13
Bohio	1.03	5.64
Tabernilla	.99	5.49
San Pablo	1.04	5.58
Central Section.		
Bas Obispo	.84	5.45
Gamboa	1.00	6.41
Empire	2.10	7.73
Camacho Dam	2.15	9.05
Culebra	2.96	8.99
Rio Grande	2.80	8.86
Pacific Slope.		
Pedro Miguel	2.53	6.92
La Boca	.71	3.01
Ancon	.95	4.03
Upper Chagres.		
Alhajuela	1.94	5.58

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week beginning July 29:

		Price.
FRESH MEATS, POULTRY AND COLD MEATS.		
Beef—Sirloin roast	per lb	30
Rump roast	per lb	30
Porterhouse	per lb	30
Rib-roast, short cut (not under 3½ pounds)	per lb	24
Rib-roast, second cut	per lb	20
Chuck-roast	per lb	15
Soup	per lb	9
Stew	per lb	12
Corned	per lb	12, 14, 16
Suet	per lb	4
Steaks—Sirloin	per lb	30
Porterhouse	per lb	30
Rump	per lb	30
Tenderloin	per lb	30
Round	per lb	24
Veal—Cutlets	per lb	24
Short-cut chops	per lb	24
Loin	per lb	23
Entire forequarters (15 to 20 lbs)	per lb	11
For stewing	per lb	11
Mutton—Entire forequarters, (not under 10 lbs)	per lb	9
Short-cut chops	per lb	20
Leg (8 to 10 lbs)	per lb	18
Lamb—For stewing	per lb	10
Entire forequarters	per lb	10
Chops	per lb	30
Leg (6 to 8 lbs)	per lb	28
Pork—Cuts	per lb	20
Livers—Calf	each	60
Sausage—Bologna	per lb	15
Sweet bread—Veal	each	1.20
Beef	per lb	25
Pigs' tongues (salted)	per lb	15
Ox tongues	each	90
Chickens, dressed (milk-fed)	each	1.40
Chickens, large	each	1.90
Fowls, medium and large	each, $1.00 and	1.25
Ducks, fatted (fancy)	each	1.10
Suckling pigs	each	4.90
Turkeys	per lb	28
Squabs	each	45
Eggs (fresh)	per dozen	28
Broilers	each	85
Capons	each	2.40
Bacon—Strips	per lb	23
English, breakfast, sliced	per lb	§26
Ham—Sugar-cured, sliced	per lb	§25
One-half for boiling	per lb	§20
Westphalia	per lb	54
Ferris	per lb	19
Beef, salt, family	per lb	14
Salt Pork	per lb	13
DAIRY PRODUCTS.		
Butter, prints, prime quality	per lb	35
Cheese—Cream, Phila	each	22
Neufchatel	each	6
Young America	per lb	22
Swiss	per lb	33
Gouda	per lb	34
Edam	each	1.05
Camembert	per lb	28
McLaren's	per jar	15
Pinxter's	per tin	22
Buttermilk	bottle	15
FRUITS AND VEGETABLES.		
Limes	hundred	70
Lemons	dozen	18
White potatoes	per lb	3½
Cabbage	per lb	3½
Corn	dozen	35
Onions	per lb	4½
Watermelons	each	35
Sweet potatoes	per lb	2½
Squash	per lb	8
Yams	per lb	3½
Turnips	per lb	6
Carrots	per lb	7

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§ Sold only from cold-storage and not from Commissaries.

NEW ARTICLES.

		Price.
Chairs, office, revolving, with arms	each	$6.60
Mats—Bed room, 12x9ft	each	7.60
Cocoa, door, 16x27-in	each	60
Cocoa, door, 19x31-in	each	90
Shoe trees	each	80
Nail polish	jar	60
Nail powder	box	15
Nail files, flexible steel	each	10
Drawers	pair	40
Undershirts and drawers	garment	1.00
Pants, khaki	pair	1.40
Collars' embroidered	each	16 and 20
Shoes—Men's, tan, high-cut, blu	pair	3.50
Men's, box and russet calf, bals	pair	3.50
Men's, russet, blu., oxf	pair	3.80
Men's, gun metal, blu., oxf., vici	pair	3.25
Men's, pat. Colt, blu., oxf., vici	pair	3.50
Ladies', white duck, low-cut	pair	2.00
Boys', russet tip, blu., oxf	pair	2.80
Boys', gun metal, blu., oxf	pair	2.00

PANAMA RAILROAD COMPANY

TIME TABLE No. 1

IN EFFECT MARCH 1st, 1908

SOUTH BOUND			Distance from Colon.	MAIN LINE	Distance from Panama.	NORTH BOUND			
No. 7 Pass.	No. 5 Pass.	No. 3 Pass.		S Stop F Flag Station		No. 2 Pass.	No. 4 Pass.	No. 6 Pass.	No. 8 Pass.
Daily	Daily	Daily		STATIONS		Daily	Daily	Daily	Daily
Leave	Leave	Leave	Miles		Miles	Arrive	Arrive	Arrive	Arrive
P. M.	A. M.	A. M.				A. M.	P. M.	P. M.	P. M.
4.35	10.30	5.30	.00	† COLON	47.58	9.05	1.00	3.50	8.00
s 4.37	s 10.33	s 5.32	0.42	Cristobal	47.16	s 9.03	s 12.57	s 3.47	s 7.57
s 4.43	f 10.37	s 5.38	1.90	Mount Hope	45.68	s **8.58**	12.53	3.42	s 7.52
f 4.48	10.43	f 5.44	4.52	Mindi	43.06	f 8.50	f 12.46	f 3.35	f 7.45
s 4.55	s 10.50	s 5.50	7.08	Gatun	40.50	s 8.43	s 12.40	s 3.30	s **7.40**
f 5.03	f 11.00	5.58	10.68	Lion Hill	36.90	8.33	f 12.30	3.19	f 7.29
f 5.08	f 11.06	6.03	12.75	Ahorca Lagarto	34.83	8.27	f 12.24	3.13	f 7.22
s 5.15	s 11.13	s 6.10	15.52	† Bohio	32.06	s 8.20	s 12.17	s 3.05	s 7.15
s 5.23	s 11.22	6.18	18.75	† Frijoles	28.83	s 8.10	f 12.08	2.58	s 7.06
							P. M.		
s 5.31	s 11.31	s 6.26	21.62	Tabernilla	25.96	s 8.03	s 11.58	s 2.50	s 6.58
5.35	11.35	6.30	22.84	Barbacoas	24.74	8.00	11.54	2.47	6.55
s 5.37	s 11.37	s 6.32	23.56	San Pablo	24.02	s 7.58	s 11.52	s 2.46	s 6.53
f 5.40	f 11.40	6.35	24.57	Bailamonos	23.01	7.54	f 11.48	2.43	f 6.53
s 5.45	s 11.45	s 6.40	26.02	† Mamei	21.56	s 7.50	s 11.45	2.40	f 6.47
s 5.53	s 11.53	s 6.49	28.53	† Gorgona	19.05	s 7.41	s 11.37	s 2.32	s 6.37
s 5.58	s 11.58	s 6.54	29.90	† Matachin	17.68	s 7.36	s 11.32	2.27	s 6.32
	P. M.								
s 6.03	s 12.03	s 6.59	31.26	Bas Obispo	16.32	s 7.32	s 11.27	s 2.23	s 6.27
s 6.09	s 12.09	s 7.05	32.83	Las Cascadas	14.75	s 7.26	s 11.20	s 2.17	s 6.21
s 6.17	s 12.17	s 7.14	35.18	† Empire	12.40	s 7.17	s 11.13	s 2.10	s 6.14
s 6.22	s 12.22	s 7.19	36.18	Culebra	11.40	s 7.10	11.08	s 2.00	s 6.10
6.30	12.30	7.26	39.04	Cucaracha	8.54	7.00	10.57	1.51	5.57
s 6.32	s 12.32	s 7.28	39.78	Paraiso	7.80	s 6.58	f 10.56	1.50	f 5.56
s 6.37	s 12.38	s **7.31**	40.72	Pedro Miguel	6.86	s 6.54	s 10.52	s 1.48	s 5.52
s 6.42	s 12.43	s 7.35	42.08	Miraflores	5.50	s 6.50	s 10.48	f 1.44	s 5.48
s 6.50	s 12.50	s 7.40	44.55	† Corozal	3.03	s 6.43	s 10.40	s 1.38	s 5.40
6.55	12.56	7.45	46.75	† La Boca Junction	0.83	6.38	10.33	1.32	5.33
7.00	1.00	7.50	47.58	† PANAMA	00	6.35	10.30	1.30	5.30
P. M. Arrive	P. M. Arrive	A. M. Arrive		† *Telegraph Stations.*		A. M. Leave	A. M. Leave	P. M. Leave	P. M. Leave

MOVEMENT OF OCEAN VESSELS.

The following is a list of the sailings of the Panama Railroad Steamship Company, of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON.

Colon	P. R.R.	Thursday	July 23
Prinz Sigismund	H.-A.	Friday	July 24
Clyde	R–M.	Saturday	July 25
Advance	P. R.R.	Tuesday	July 28
Prinz Joachim	H.-A.	Saturday	Aug. 1
Allianca	P. R.R.	Monday	Aug. 3
Finance	P. R.R.	Friday	Aug. 7
Pr. Eitel Friedrich	H.-A.	Friday	Aug. 7
Trent	R.-M.	Saturday	Aug. 8
Panama	P. R.R.	Wednesday	Aug. 12
Pr. Aug. Wilhelm	H.-A.	Saturday	Aug. 15
Advance	P. R.R.	Monday	Aug. 17
Prinz Sigismund	H.-A.	Friday	Aug. 21
Colon	P. R.R.	Saturday	Aug. 22
Tagus	R.-M.	Saturday	Aug. 22
Allianca	P. R.R.	Thursday	Aug. 27
Prinz Joachim	H.-A.	Saturday	Aug. 29

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston enroute to Colon.

FROM COLON TO NEW YORK.

Trent	R.-M.	Tuesday	July 28
Esperanza	P. R.R.	Friday	July 31
Pr. Aug. Wilhelm	H.-A.	Tuesday	Aug. 4
Colon	P. R.R.	Wednesday	Aug. 5
Advance	P. R.R.	Monday	Aug. 10
Tagus	R.M.	Tuesday	Aug. 11
Allianca	P. R.R.	Saturday	Aug. 15
Prinz Joachim	H.-A.	Tuesday	Aug. 18
Finance	P. R.R.	Thursday	Aug. 20
Panama	P. R.R.	Tuesday	Aug. 25
Magdalena	R. M.	Tuesday	Aug. 25
Advance	P. R.R.	Sunday	Aug. 30
Pr. Aug. Wilhelm	H.-A.	Tuesday	Sept. 1
Colon	P. R.R.	Friday	Sept. 4
Orinoco	R.-M.	Tuesday	Sept. 8
Allianca	P. R R.	Wednesday	Sept. 9

FROM NEW ORLEANS TO COLON.

Ellis	U.F.C.	Saturday	July 25

FROM COLON TO NEW ORLEANS.

Harry T. Inge	U.F.C.	Tuesday	July 28
Ellis	U.F.C.	Tuesday	Aug. 4

FROM COLON TO BARBADOS, CALLING AT TRINIDAD.

Clyde	R.-M.	Tuesday	Aug. 8
Trent	R.-M.	Tuesday	Aug. 14
Tagus	R.-M.	Tuesday	Sept. 1

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company dispatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan ports, Martinique and Guadeloupe on the 3d and 20th of each month.

The steamers of the Leyland line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Jamaican* about July 27.

The following steamers have recently arrived at La Boca: July 18, *Tucapel*, from Valparaiso; July 23, *Theben*, from Tacoma, and *Quito*, from Buenaventura. Departurs: July 21, *California*, for Valparaiso.

Among the supplies recently received on the Isthmus are 200 tons of tie plates; 552,827 feet of lumber, brought by the steamship *Enfield*, and a cargo of bridge and trestle timber delivered at La Boca by the *Theban* from Tacoma, Wash.

CANAL RECORD

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The Canal Record

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No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS

July Excavation.

The grand total of excavation during the month of July was 3,168,840 cubic yards, all of which except 122,884 cubic yards was taken from the Canal prism. This establishes a new record for excavation in the rainy season, being 108,533 cubic yards more than the record for June, and 311,430 cubic yards short of the highest dry season record, that of March, 1908. Compared with July, 1907, it shows an increase of 2,105,114 cubic yards. There were 26 working days in both June and July. Of the grand total of July excavation 1,847,173 cubic yards were taken out by steam shovels, and 1,321,667 by dredges.

The average rainfall in July for the territory in which excavation is in progress was 11.14 inches, as compared with 10 inches in the previous month, and with 10.13 inches in July, 1907.

The excavation work for July was marked by no unusual features, except that the heavy rain storms of July 24 and July 27, made the shovels in Culebra Cut lose more than a day, and interfered also with work on the Pacific Division. On July 1, the Culebra and Chagres divisions were combined and made the Central Division. The excavation in this division was 1,467,082 cubic yards, of which 1,121,325 cubic yards were taken from the Culebra section, which includes only the Culebra Cut.

In the Atlantic Division the excavation was 862,371 cubic yards, of which 136,816 cubic yards were taken from the locks' site at Gatun, 76,543 from the spillway, and 625,497 cubic yards by dredges.

The excavation in the Pacific Division amounted to 839,387 cubic yards, of which 127,017 cubic yards were taken from the sites of the Pacific locks and dams, 16,200 from Cardenas Hill, and 696,170 cubic yards from the dredged channel in Panama bay.

In order to compare the statement of July excavation which follows with similar statements for previous months, it is to be remembered that the Chagres and Culebra sections of the Central Division correspond to the old Chagres and Culebra divisions, that the figures for the old Colon and La Boca dredging divisions are the same as those for "wet excavation," Atlantic and Pacific Divisions, respectively, and that steam shovel excavation is included under and comprises practically all the "dry excavation":

ATLANTIC DIVISION

Locality.	From Canal Prism	Outside Canal Prism	Total excavation
	cu. yds.	*cu. yds.*	*cu. yds.*
Dry excavation—			
Gatun spillway	....	76,543	76,543
Gatun locks	136,816	....	136,816
Mindi	23,515	....	23,515
Total	160,331	76,543	236,874
Wet excavation—			
Colon	625,497	....	625,497
Total, wet and dry excavation	785,828	76,543	862,371

CENTRAL DIVISION

Locality.	From Canal Prism	Outside Canal Prism	Total excavation
All dry excavation—			
Chagres section	345,757	....	345,757
Culebra section	1,095,362	25,963	1,121,325
Total	1,441,119	25,963	1,467,082

PACIFIC DIVISION

Locality.	From Canal Prism	Outside Canal Prism	Total excavation
Dry excavation—			
Miraflores locks	87,675	4,204	91,879
Pedro Miguel locks	18,964	3,684	22,648
Cardenas Hill	16,200	....	16,200
Miraflores dam	....	12,490	12,490
Total	122,839	20,378	143,217
Wet excavation—			
La Boca	696,170	....	696,170
Total, wet and dry excavation	819,009	20,378	839,387

TOTAL EXCAVATION, ENTIRE CANAL

Locality.	From Canal Prism	Outside Canal Prism	Total excavation
Dry excavation (steam shovels)	1,724,289	122,884	1,847,173
Wet excavation (dredges)	1,321,667	....	1,321,667
Total	3,045,956	122,884	3,168,840

July Rainfall for Three Years.

Station.	1906.	1907.	1908.	Av'ge since station estab'd.	No. of rainy days.
Atlantic Division—					
Cristobal	19.23	17.86	14.76	16.48	27
Brazos Brook	20.82	13.96	18.25	17.68	27
Gatun	.....	11.12	13.67	12.63	27
Bohio	17.76	8.70	7.78	13.00	28
Central Division—					
Tabernilla	.....	7.67	7.84	7.76	25
San Pablo	.....	12.32	7.59	9.96	23
Bas Obispo	.....	8.25	9.14	8.80	25
Gamboa	17.81	7.92	11.43	10.14	24
Empire	12.63	9.89	11.79	10.14	24
Camacho Dam	.....	10.05	12.83	11.44	23
Culebra	20.26	9.31	13.23	9.39	23
Rio Grande	14.00	10.52	12.55	12.07	24
Pacific Division—					
Pedro Miguel	.....	....	9.53	9.53	21
La Boca	7.82	4.06	5.66	9.75	23
Ancon	9.01	4.28	6.83	8.02	22
Upper Chagres—					
Alhajuela	19.17	13.29	9.68	13.56	26

Mean rainfall at twelve stations along the line of Canal where excavation is in progress: In 1908, 11.14 inches; in same territory in 1907, 10.13 inches, and in 1906, 16.29 inches.

Preference According to Competency.

Heads of Departments and Divisions:

The abolition of the Department of Motive Power and Machinery, Municipal Engineering, and Building Construction, and distribution of the latter two divisions among the three construction divisions, will necessitate the dismissal of a number of employes, in various grades, who have proved their capability through long service with the Commission, unless their services can be used to advantage elsewhere.

The time seems opportune for all heads of departments and divisions to carefully scrutinize their forces and so establish their organizations as to secure the best and most economical results. If any employes do not come up to the standard, they should be regraded or discharged and their places filled with competent men.

Division Engineer Holcombe and Master Builder Belding should be consulted in this matter and transfer arranged of such of their employes as are needed.

Geo. W. Goethals,
Chairman and Chief Engineer.

Culebra, July 23, 1908.

The Miraflores Tunnel.

The excavation for the tunnel on the relocated line of the Panama railroad near Miraflores, which was begun August 1, 1907, was completed on July 9, 1908. The tunnel is 600 feet long, 400 feet at the north end, being through rock and the 200 feet at the south end through earth. A total of 53,150 cubic yards of material was removed, divided as follows:

	Cubic yards
North approach cut	10,000
South approach cut	30,450
Tunnel proper	12,700
Total	53,150

The tunnel will be lined with concrete. Two gangs of 20 men each are building the lining from the point where the earth and rock portions join toward the ends of the tunnel. A concrete mixer is located near each portal, and material is sent up an inclined Decauville track from the mixers and deposited in the forms by gravity.

In the portion of the tunnel excavated through earth there will be laid, the full width of the excavation, a foundation of concrete, 2 feet 6 inches thick, which will support the lining. The side walls will be 4 feet 6 inches thick at the base and 2 feet 10 inches at the spring of the arch. The crown of the arch will be 2 feet thick. In the rock portion the concrete will rest on the natural rock foundation and the lining will be 1 foot 3 inches thick in both side walls and arch. In both the earth and rock portions the space between the excavation and lining will be filled with solid material.

The tunnel when completed will be 21 feet 3 inches high above the top of the rails

NOTES OF PROGRESS.

(Continued.)

and 15 feet wide, the same clearance as at the new bridge over the Chagres at Gamboa. It is estimated that about 4,000 barrels of cement, 4,000 cubic yards of crushed rock, 2,000 cubic yards of sand and 75 tons of Ransome twisted bars for reinforcing will be used in the construction of the lining.

Paving in Colon.

The work of surfacing the streets of Colon, begun two years ago, was finished last month, when the Division of Municipal Engineering completed the macadamizing of Bolivar Street. The railroad tracks have been moved from Bolivar Street, making it one of the most useful and most used streets in the town. The paving done in Colon since the American occupation includes Front Street, which is paved with brick, Bottle Alley, Bolivar Street and Cash Alley, which are macadamized. The only street in the town running parallel with the water front that remains to be paved is D Street.

Paraiso Shops to be Closed.

By direction of the Chairman and Chief Engineer, Paraiso shops will be closed as soon as the work now under way can be completed, which will be about the middle of August. The machinery, tools and working force will be distributed among the shops at Pedro Miguel, Empire and Gorgona. The step is in keeping with the policy of effecting economies by a concentration of men, machines, and materials.

Improvements on Steam Shovels.

As the excavation in Culebra Cut grows deeper the proportion of rock in the material handled by the steam shovels becomes greater. To meet the increasingly difficult conditions experiments have been made in strengthening the shovels. Shovel 232, one of the 95-ton Bucyrus type, has been fitted with a special 4-yard "rock dipper," a combination wood and steel dipper stick, a combination wood and steel boom, and a cast steel swing circle. This outfit is somewhat heavier than the structural steel swing circle, boom, dipper stick, and 5-yard, round nosed dipper, with which this type of shovel is regularly furnished, and the parts are designed for the hardest service. It is expected that a large saving in cost of repairs will be realized without cutting down the output.

The combination boom and dipper stick are practically the same as those used on 95-ton shovels on the Messaba Iron Range. The cast steel swing circle was designed by the mechanical division as an improvement over the old style of riveted and bolted circle which soon goes to pieces under the continuous stresses to which this part of the shovel is subjected. The rock dipper was also designed by the mechanical division and is built of ¾-inch and 1-inch steel sheets with a manganese steel lip. One of the features of this dipper is the flat curved lip equipped with five 6-inch (width of point) Panama type dipper teeth instead of four teeth, as is the usual practice. The plan area through the dipper is 3,440 square inches, a large increase over the regular dipper. In service it is noted that this dipper, although shallower than the regular 5-yard dipper, carries more material when handling rock. The utility of the flat lip is made very evident when this shovel works in a piece of unblasted rock, the flat lip permitting operators to take advantage of straight cracks and fissures and thus tear the rock to pieces. Using the ordinary dipper it would be necessary to blast such rocks before the shovel could be used.

Shovel 232 is now working near Empire and has been put into the hardest digging. The expected improvement in operation and upkeep has been realized, and it is purposed gradually to equip the 95-ton shovels with this type of dipper.

Standard Time in Peru.

President Pardo, of Peru, has issued a decree making Eastern Standard Time of the United States the official standard time of the whole of Peru. This order went into effect on July 28, and all the timepieces of Peru, Panama and the eastern portion of the United States that are correctly regulated will hereafter indicate exactly the same time. This is in accordance with the recommendation of the Geographical Society of Lima, through Professor David Todd of Amherst College, who was in Peru last year observing Mars. It is expected that other South American countries will adopt this world standard of time which has proved of great advantage in facilitating commercial and international intercourse.

Examination for Clerk.

A local examination for the position of clerk in the service of the Isthmian Canal Commission will be held Sunday, September 13, 1908. The exact hour and place of the examination will be announced later. Copies of the Manual of Examinations, containing all necessary information and sample questions, and copies of the prescribed application form, will be furnished upon written request by the Secretary of the Isthmian Civil Service Board, Office of the Chairman, Culebra, Canal Zone.

The examination is open to citizens of the United States between the ages of 20 and 45 years. Persons intending to enter the examination should file their applications at once, in order that requisition may be made for sufficient papers and other necessary arrangements completed by the Board of Examiners.

Commission Hotels and Messes.

In carrying out the policy of placing the Commission hotel in each village and the nearby messes for laborers under one head, the Subsistence Officer has made the following assignments to duty:

C. Knutson, chief steward, Pedro Miguel district, including the Commission hotel at Pedro Miguel, European laborers' mess 64 at Pedro Miguel, and common laborers' mess kitchen 31 at Pedro Miguel.

A. W. Forbes, acting chief steward, Corozal district, including the Commission hotel at Corozal, European laborers' mess 65, and common laborers' mess kitchen 33 at Corozal, and common laborers' mess kitchen 102 at Cocoli Hill.

J. B. Doyle, chief steward, Santa Cruz district, including Commission hotel and European laborers' mess 76 at Santa Cruz.

B. Arden, chief steward, Miraflores district including Commission hotel and European laborers' mess 74 at Miraflores, and common laborers' mess kitchen 38, Panama railroad car.

Prevalence of Rabies.

Several cases of rabies have developed in the Canal Zone and Panama since the 1st of May. An employe of the Commission who was bitten by a mad dog was sent to the States for treatment, as it is impracticable to keep the Pasteur treatment on the Isthmus. The following ordinance, bearing on the epidemic of rabies, was enacted by the Commission at its meeting, on July 18, and will be in force in the Canal Zone on and after the date of its approval by the Secretary of War:

1. The Chief Sanitary Officer of the Isthmian Canal Commission is authorized to designate any district, section or portion of the Canal Zone within which, and to fix the period of time during which, unmuzzled dogs shall not be permitted to be at large in any town, village, settlement or labor camp, or on any public highway. Such designation shall be published by printed notice posted conspicuously throughout the district, section or portion of the Canal Zone to which it applies, for ten days before the day upon which it becomes effective.

2. It shall be unlawful for the owner of any dog to allow such animal to run at large unmuzzled in any town, village, settlement or labor camp, or on any public highway within the district, section or portion of the Canal Zone and within the period of time designated by the Chief Sanitary Officer.

3. Any dog found running at large contrary to the provisons of this ordinance shall be taken up and impounded by the police, provided that any such animal may be taken up by any private individual and delivered to the police for impounding.

4. Notice of the impounding of any dog shall be posted by the police in two conspicuous places in the police district in which such animal is impounded for five days, including the day upon which the dog is impounded. Such notice shall contain a description of the dog and state where it is impounded, and to whom application should be made for its release. It shall also state that the dog will be destroyed on the fifth day from the date of the notice, if previous application is not made for its release.

5. If, after the expiration of five days, no application has been made for the release of a dog confined in the pound, the dog shall be destroyed by the police. The police shall also destroy without notice or delay any dog having or suspected of having the disease of rabies.

6. The owner of any dog impounded in accordance with the preceding sections of this ordinance may secure the release of the dog at any time prior to the expiration of five days from the date on which it was impounded by exhibiting to the officer in charge of the pound a receipt from the District Judge for the fine imposed for a violation of this ordinance, and proving ownership, he shall, however, muzzle the dog before it is delivered to him.

7. Any person violating this ordinance shall be punished by a fine of five dollars for a first violation and a fine of ten dollars for any subsequent violation.

WEATHER CONDITIONS, CANAL ZONE, JULY, 1908.

Stations	Press're (reduc'd to mean of 24 hours.)	Temperature.					Mean relative humidity.	Precipitation.			Wind.			
		Mean.	Maximum.	Date.	Minimum.	Date.		Total.	Days with .01 or more.	Average since station estb'd.	Total movement (in miles.)	Prevailing direction.	Max. velocity (in miles.)	Date.
Cristobal	29.88	78	86	8	70	16	89	14.76	27	16.48	5,844	w.	40	16
Bas Obispo	29.88	78	90	13	69	11	93	9.14	25	8.80	2,987	n.w.	25	11
Ancon	29.86	80	93	13	69	11	88	6.83	22	8.02	5,098	n.w.	24	16

CANAL ZONE SUBSISTENCE DEPOT.

The Cold Storage and Allied Plants at Cristobal.

The subsistence depot at Cristobal is the principal source of the food supply for the 50,000 people living in the Canal Zone. A train of 13 cars, eight for cold storage and five for other supplies, loaded with foodstuffs and ice leaves Cristobal every morning at 4.30 o'clock and delivers supplies at points along the line, arriving at Panama at 8.10 and East La Boca at 9.30 o'clock. In addition eight other cars loaded with supplies are sent by other trains during the day, making a total of 21 cars leaving the depot daily. All cold storage articles are wrapped in the cold storage rooms and delivered in the original packages to the Commission hospitals, hotels, mess kitchens, local commissaries, and families in the Zone. Wagons maintained by the Quartermaster's Department meet the train at all stations and deliver the supplies. During the month of June, 1908, the cold storage plant shipped, including ice, 5,608,283 pounds of supplies wrapped in 39,309 packages, an average of over 1,300 a day. Cold storage supplies are brought to the Isthmus from the States by vessels of the Panama Railroad Steamship Company, the United Fruit Company and the Royal Mail Steam Packet Company, and deliveries are made at Cristobal and Colon about ten times a month.

A commissary department was established on the Isthmus in 1894 by the Panama Railroad Company to supply groceries to the heads of its departments only. In 1896 the stock of goods was increased and commissary privileges were extended to all employes of the railroad, all steamship lines, warships of any nationality, diplomatic and consular officers living on the Isthmus and the officials of the French Canal Company. The commissary department has been operated by the Panama Railroad Company ever since it was established, except between February 15 and June 1, 1905, when it was operated by the Isthmian Canal Commission. On July 16, 1908, the commissary department was placed in charge of the Subsistence Department of the Isthmian Canal Commission, to be operated on account of the Panama Railroad Company.

From May 4, 1904, the date of American occupation, to August 2, 1905, only employes on the gold rolls of the Commission and of the Railroad Company and their families could purchase goods from the commissary. On the latter date the privilege was extended to all employes of the Commission and of the Panama Railroad Company, and on January 21, 1907, to the employes of the United States Department of State living on the Isthmus. All purchases are paid for with coupons from commissary books and no cash is received. "Gold" employes are allowed to draw books not to exceed 75 per cent of their salary, and "silver" employes not to exceed $15 per month.

The cold storage and allied plants are located at Cristobal near Pier 11. They include the ice plant, bakery, ice cream factory, coffee roasting oven, laundry, printing, and power plant. There are 41 gold and 348 silver employes in the combined plants.

The cold storage plant is in a building 112 feet by 131 feet and three stories high. The ground floor, occupying 14,672 square feet, has six rooms and two working corridors containing 93,607 cubic feet of refrigerated space kept at a temperature varying from eight to forty-five degrees Fahrenheit. The space on the second floor has just been equipped with the Lindey system of dry refrigeration and contains about 100,000 cubic feet kept at about forty degrees. In addition to this space a room has been fitted up on this floor for keeping fresh milk at a temperature of about thirty-eight degrees. On the third floor is a room with a thoroughly dry floor in which are kept sweet potatoes, yams, and other similar food supplies that cannot be kept in cold storage. In connection with the cold storage building there are operated eighteen cold storage cars used in transporting supplies from the ships to the plant, which makes it possible to keep all supplies in cold storage from the point of shipment in the States to the point of delivery on the Isthmus.

The ice plant has a daily capacity of 74 tons all made from filtered and sterilized water. The average consumption, including ice used in refrigerating cars, is about 70 tons.

The bakery has a daily output of about 20,000 loaves of bread, 500 pounds of cake and 500 pies. The machinery consists of two dough mixers, two dividers, one pony mixer, two cake and two pie machines, and a pie trimmer. The dough is cut and weighed by the dividers, formed into loaves by the molding machine, and then placed by hand in the baking pans, the only time it is touched by hand until it leaves the oven. The flour is elevated above the mixing machine and it and the filtered water are automatically measured so that the chance of error is small and the proportion of materials is kept uniform.

The ice cream factory, occupying a small space on the third floor of the cold storage building, is supplied with modern machinery, which has recently been installed, and has a capacity of about 400 gallons per day with an average output of about 100 gallons. All the milk and cream used is pasteurized and is brought from the States. The flavoring extracts and crushed fruits used are the purest obtainable. The ice cream is frozen with brine circulated from the brine tanks of the ice plant, instead of with ice, which reduces the cost of manufacture.

The coffee roasting outfit, consisting of a roaster, stoner, grinder, and a sample roasting outfit for making experiments in blending coffee, is new and has a capacity of about 3,000 pounds per day.

The laundry is equipped with nine washers, six extractors (wringers), two tumblers, two mangles for flat work, a sterilizer, three hydraulic damp presses, three collar and cuff machines, three body ironers, two starching machines, three shirt machines, and seventy hand ironers. There are four drying rooms, in one of which is a conveyor working automatically. Garments are hung on a continuous chain and run slowly through a steam heated room where they become thoroughly dry. All the machines are heated by electricity, except the mangles which are steam heated. During the month of June the laundry handled 6,907 packages, amounting to 194,855 pieces.

All the printing and binding for the Panama Railroad is done by the printing plant located near the Cristobal railroad station. It averages about 2,250,000 pieces of printed matter per month. The machinery includes six job presses, one cylinder press, stereotype outfit, ruling machine, and book binding machine, and has a full assortment of type.

The power plant, including the engine and boiler room, occupies about 9,016 square feet. There are six boilers of 150-h. p. each, two circulating pumps used in connection with the condensers, three compressors with a refrigerating capacity of 75 tons each, two Ideal engines which are direct connected to two Bullock electric dynamos developing each 833 amperes of 115 volts. These machines are used for furnishing light and power to all the plants in which there are about 45 motors, many arc, mercury, and incandescent lights, flat irons, electric stoves and other heating apparatus.

The capacity of the entire electrical equipment in amperes is 2493.2; in kilowatts, 229.24; and the capacity of motors in horse power is 795. There is also an alternating motor generator with a capacity of 60 k. w. which supplies light for Cristobal. In addition to the machinery mentioned there are a distilling and filtering outfit, vacuum pumps, etc., all of which are a part of the power plant equipment. Oil-burning apparatus, which should be in operation by August 10, is being installed. The electrical equipment located on the beach at Colon, which furnishes the power for the electric lights of that town, is being combined with this plant.

OFFICIAL CIRCULARS.

Timekeepers to Take Examination.

CIRCULAR NO. 190.

All employes rated as "Timekeepers" and engaged in the preparation of payrolls, should be advised to enter the local civil service examination for the position of clerk announced in the current issue of THE CANAL RECORD.

It is intended to eliminate as rapidly as possible the rating of "Inside" or "Office" timekeeper. New appointments to positions in timekeeping offices will be made from the Civil Service Commission's register of clerks, and "Timekeepers" now in the service will be rerated as clerks as soon as they pass the examination and are certified for appointment, but in this reorganization of timekeeping office no action will be taken to the detriment of "Timekeepers" appointed in good faith prior to May 13, 1908, who may be excluded from that examination by reason of their age and nationality.

GEO. W. GOETHALS,
Chairman.

Culebra, August 1, 1908

LEGAL NOTICE.

United States
of America } In the First Judicial Circuit
Canal Zone

George Blake, Jamaican, died intestate July 15, 1907, leaving an estate, consisting of three houses in Pedro Miguel. The claimants for the estate have not proved that they are the legitimate heirs of the decedent, and the Collector of Revenues has filed a petition for escheat under Sections 779-781 of the Code of Civil Procedure.

Notice is hereby given to all concerned to appear at the court house in Ancon on October 5, 1908, at 9 o'clock a. m., to establish their claims to the said estate, or to show cause why the same should not escheat to the Canal Zone.

WALTER EMERY,
Circuit Court Clerk.

The following steamers have recently arrived at La Boca: July 24, *Indiana*, from San Francisco; July 26, *Guatemala*, from Valparaiso, and *Chevalier*, from Guayaquil Departures were: July 25, *San Juan*, for San Francisco; July 26, *Barracouta*, for Central American ports; July 28, *Tucapel*, for Valparaiso, and *Quito*, for Guayaquil

RECORD OF EXCAVATION SINCE AMERICAN OCCUPATION.

MONTHLY TOTALS BY CUBIC YARDS, PLACE MEASUREMENT.

ATLANTIC DIVISION.

COLON—DRY EXCAVATION.

Months.	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
January			62,835	
February			65,632	
March			81,850	
April			67,436	
May			54,333	
June			32,022	
July	731		23,515	
August	15,257			
September	28,837			
October	41,078			
November	40,003			
December	46,945			
Totals	172,851		387,623	

Total to August 1, 1908—560,474 cubic yards.

COLON—WET EXCAVATION.

Months.	1905*	1906*	1907		1908	
	Outside Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
January		90,700		111,100	444,403	46,298
February		105,500		110,002	401,887	25,835
March		126,650		84,145	515,223	31,663
April		87,200		69,889	496,366	
May	60,700	64,875		133,847	564,386	
June		73,500	17,000	107,118	572,749	
July	58,050	69,000	104,322	5,600	625,497	
August	53,183	54,000	189,170	5,127		
September	48,837	123,540	403,842			
October	48,800	111,020	409,632	5,488		
November	38,000	63,260	417,297	5,500		
December	92,250	58,400	428,053	14,782		
Totals	399,820	1,027,645	1,969,316	652,598	3,620,511	103,796

Total to August 1, 1908—7,773,686 cubic yards.

* No work done inside of Canal Prism.

There were also 38,425 cubic yards of wet excavation removed at the Gatun dam site in 1907.

GATUN LOCK DAM AND SPILLWAY

Months	1906*	1907		1908	
	From Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
January		47,539		193,567	98,588
February		70,177		176,291	106,506
March		100,151		202,763	171,835
April		103,459		196,109	177,347
May		70,528		138,815	127,932
June		71,181	3,832	116,998	127,953
July		59,537	14,628	136,816	76,543
August		78,357	26,866		
September		87,423	36,315		
October	3,055	136,777	40,236		
November	11,517	121,635	40,987		
December	12,056	160,795	69,756		
Totals	26,628	1,107,559	232,620	1,161,359	886,704

Total to August 1, 1908—3,414,870 cubic yards.

* No work done outside of Canal Prism.

CENTRAL DIVISION.

CULEBRA SECTION

Months	1904	1905	1906	1907	1908
January		70,650	120,990	566,750	1,227,022
February		75,200	168,410	639,112	1,248,265
March		132,840	239,178	815,270	1,290,885
April		126,749	213,177	879,527	1,242,574
May	27,556	75,935	196,209	690,365	960,840
June	32,551	76,905	212,623	624,586	1,134,032
July	31,599	78,570	159,789	770,570	1,121,325
August	35,056	49,210	244,823	786,866	
September	25,220	44,085	291,452	753,468	
October	19,695	52,940	327,009	834,499	
November	28,860	60,540	221,642	790,632	
December	42,935	70,630	307,689	1,025,485	
Totals	243,472	914,254	2,702,991	9,177,130	8,224,943

Total to August 1, 1908—21,262,790 cubic yards.

CHAGRES SECTION.

Months.	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
January			169,447	
February			200,145	
March			324,233	
April			329,483	
May			235,902	
June			322,145	
July			345,757	
August	2,900			
September	21,546			
October	25,627			
November	44,041			
December	98,652			
Total	192,769		1,927,112	

Total to August 1, 1908—2,119,881 cubic yards.

FRENCH AND AMERICAN RECORDS.

		Feet
Highest elevation on new center line of Canal before excavation began by the French:		
At Culebra		312
At Bas Obispo		233
Greatest depth of excavation by the French:		
On I. C. C. axis—At Culebra		161
At Bas Obispo		148
Greatest center-line depth remaining to be excavated when Americans took control in order to reach the bottom of an 85-foot level Canal:		
At Culebra—At same point as before		111
At barrier on Contractor's Hill ... about		140
At Bas Obispo		45
		Cubic yards
Total excavation by the French at all points and including diversion channel ... about		81,548,000
Amount excavated under American control to August 1, 1908:		
In Culebra Cut		21,262,790
By wet excavation (dredges)	16,099,132	
By dry excavation (steam shovels)	28,008,283	
Total of wet and dry excavations, entire canal		44,107,415

PACIFIC DIVISION.

PEDRO MIGUEL LOCKS.

Months.	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
January				
February				
March				
April				
May				
June			6,832	6,396
July			18,964	3,684
August				
September				
October				
November				
December				
Totals			25,796	10,080

Total to August 1, 1908—35,876 cubic yards.

MIRAFLORES LOCKS, DAMS AND SPILLWAY

Months.	1907		1908	
	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
January			7,203	
February			38,661	385
March			67,963	5,231
April			92,261	6,682
May			54,606	18,417
June			68,691	
July			90,165	4,204
August				
September				
October				
November				
December				
Totals			417,060	47,409

Total to August 1, 1908—464,469 cubic yards.

There were also 78,233 cubic yards of dry excavation removed at the La Boca locks and dams in 1907, and 71,690 cubic yards at Cardenas Hill in March, April, May, June and July, 1908.

LA BOCA—DREDGING.

Months.	1905*	1906*	1907		1908	
	Outside Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism	From Canal Prism	Outside Canal Prism
January		95,940		94,710	460,250	
February		95,940		93,480	663,519	
March		116,820		92,319	783,281	
April		110,700		104,855	676,539	
May		112,340		122,157	530,466	
June	50,676	62,697	64,352	69,223	656,621	
July	41,533	98,400	108,338		696,170	
August	54,530	111,930	168,281			
September	114,308	105,780	144,625	9,250		
October	81,836	97,170	357,122			
November	71,176	92,988	365,423			
December	71,094	90,528	349,551			
Totals	485,153	1,191,233	1,557,695	586,094	4,466,846	

Total to August 1, 1908—8,287,021 cubic yards.

* No work done inside Canal Prism.

SOCIAL LIFE OF THE ZONE.

Women's Clubs and Other Features.

The Las Cascadas Woman's Club met at the usual hour on Thursday, July 30, the president in the chair. Twelve members and two visitors were present. The meeting opened with the singing of the National hymn, Mrs. W. G. Thompson being at the piano. The president made a short address which was followed by piano selections. There were two contests, prizes being won by Mrs. S. W. Hutton and Mrs. A. N. Nayler. Refreshments were served by the the entertainment committee.

A meeting of the Pedro Miguel Woman's club was called by the president, Mrs. F. R. Roberts on Wednesday, July 29, and arrangements were made for the dance held the evening of August 1. The resignation of the vice-president, Mrs. H. R. Pease, was tendered, owing to her removal to Porto Bello, and at the close of the business meeting a reception was given in her honor. As many members of the club have returned from their vacation, meetings of the club will be held regularly and plans are being made for a busy season.

The president of the Empire Woman's Club, Mrs. Frank Miracle, has left the Isthmus for a short vacation, and the work of the organization is in the hands of Mrs. H. C. Ball, who will represent the president in all matters pertaining to the club and the Federation until her return.

The Empire Sunday School had its picnic on Tuesday, July 29, the day being spent at the lake near the town. Swings were put up and games and sports were provided. About thirty-three children were present, and several of the teachers.

A meeting of the executive board of the Canal Zone Federation of Women's Clubs was held at the Cristobal club house on Monday, August 3, followed by a conference of presidents of the Women's clubs of the Zone.

Mrs. Frank Morrison, of Gorgona entertained about forty women at tea on Thursday afternoon in honor of her guest, Mrs. Guy Ament. Among the guests were members of the Woman's Club and other residents of the town and friends from the Line. The house was decorated with palms and tropical plants, and the tables, placed in the sitting room and on the veranda, were decorated with red and white flowers and ferns. A feature of the entertainment was a guessing contest, each guest being required to name the Presidents of the United States in the order of their administrations. The prize was awarded to Mrs. O. Kunze.

Thursday afternoon is "junior day" at the Gorgona clubhouse, and last week a party of young girls under the direction of Mrs. Cockett spent several hours in bowling, playing basketball and other sports.

The Young People's Christian Endeavor Society at Gatun gave an entertainment on Wednesday evening, July 29, for the bachelors. A program consisting of songs and recitations was given and homemade refreshments were served.

Missionary services were held at the Cristobal club house on Sunday evening, July 26, and a public missionary meeting was held at the same place on the following evening. There was a large attendance on each occasion.

The laying of the corner stone of the Protestant chapel at Ancon will take place on Sunday morning, August 16, at 10 o'clock. The services will be in charge of the Masonic order and representatives of the Army and Navy Union and other organizations will be present.

Arrangements for a picnic for the children of St. Luke's Church Sunday school are being made. Children living in the community will be invited, as well as those of the school.

The Strangers' Club of Cristobal and Colon gave its first reception and dance at the club rooms in Colon the night of July 30. The club is composed largely of Commission and Panama railroad employes, and has leased the second floor of a building on Front street, Colon, with a broad veranda looking out on Limon bay.

A special train brought the Masons and their families from along the Line on August 2, and two steamers took them from the Panama railroad pier in Panama to Taboga Island where the day was spent. An address by Judge H. A. Gudger, the taking of a group photograph, bathing and luncheon were the features.

PERSONAL.

Among the passengers sailing on the *Esperanza*, on July 31 were: Mrs. Wm. L. Sibert and family; Maj. Chester Harding, assistant division engineer, Atlantic Division; George L. Campen, superintendent of public works and Jos. A. LePrince, chief sanitary inspector.

C. H. Mann, for several years a clerk in the Quartermaster's Department, U. S. A., and recently stationed at San Francisco, has been made chief clerk of the Quartermaster's Department, Isthmian Canal Commission.

Sojourners' Lodge, No. 874.

Sojourners' Lodge, No. 874, A. F. and A.M., will meet at its hall in Colon on Saturday evening, August 8, at 7.30 p. m., in ordinary communication. Masons in good standing are fraternally invited to be present.

Municipal Engineering Work.

The work of the old Division of Municipal Engineering, and Division of Building Construction which was merged into the work of the three construction divisions on August 1, will be carried on in the Atlantic Division under the direction of L. G. Thom, assistant engineer; Central Division under G. H. Ruggles, assistant engineer; Pacific Division, W. M. Acheson, assistant engineer.

Charles A. Rose, of Bas Obispo, born in Illinois, 1865, committed suicide July 29, 1908. Mr. Rose has lived on the Isthmus 2½ years, and is survived by a wife, who lives in Bas Obispo.

Misdirected Letters.

Division of Letters.
Ancon, Station A, August 5, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions have been received in the office of the Director of Posts, and may be secured on request of addressee:

Alexander, T.
Benninger, Marshall P.
Caldwell, Frank M.
Cheek, W. H.
Daly, James
Dove, Mrs. Violet
Gowan, Mrs. Wm.
Keller, J. C.
Lander, Mrs. Rosie
Leeds, E. W.
Lewis, Mrs. Clifford
McIntosh, A. L.
Morton, Mrs. B.
Scott, Chas. (catalogue)
Smallwood, E. H
Swain, B.
Ware, Geo. H
Wolff, Dan

COMMSSION CLUB HOUSES.

Activities of the Yonog Men's Christian Association.

The Nordica Concert Quartet of Washington, D. C., will give concerts at the Commission club houses as follows: Cristobal, Wednesday, August 5; Gorgona, Thursday, August 6; Empire, Friday, August 7; Culebra, Saturday, August 8. The program includes, mandolin, mandola and piano trio, Congo solos, with trio accompaniment; mandolin solos, and contralto solos, with mandolin obligatos.

The following companies will give entertainments during the next four months: The Lotus Glee Club, six members, August 28 to September 9; the Nitke Concert Company, four members, in September; Father L. J. Vaughn, lecturer, October 1; the Euclid Entertainers, whistler, reader, and magician, in October; the Broomell Company, in November.

GORGONA.

The people of Gorgona are preparing a series of local and foreign entertainments. The Woman's club is working on a play entitled "The Old Maids' Convention;" the Association chorus, composed of forty voices, are rehearsing an "Old Folks' Singing" and a cantata; and a play, entitled "A Fisherman's Luck," is being studied, which, it is expected, will be presented about August 28.

EMPIRE.

The following is the standing of the four highest men in the duck pin tournament:

	Played	*Average*	*High score*
Charles Shore	14	87.6	95
W. R. Gallaher	10	86.6	94
C. J. Herson	12	84.7	94
Perry Brown	7	84.8	99

The highest scores made were: F. L. Gorham, 110; Samuel Bardelson, 105; F. V. Bachler, 102; Neil Schaefer, 102; J. V. McGimsey, 101.

The following bowling scores of 200 and over were made last week: Potter, 210; Bardelson, 203; Dougherty, 202; Rabbitt, 201.

The July report shows an increase in membership at Empire.

The new books recently ordered for the library were received last week and bring the number up to 650 volumes.

CULEBRA.

The monthly smoker was held last week. After several orchestra selections had been given, and the singing of old songs, a single stick fencing exhibition was given by Messrs. McSparren, MacArthur, and Fleming, following which were short addresses by Messrs. Kratz and Beaman on experiences in Greenland and China respectively. More music and a short moving picture show ended the evening's entertainment.

A number of men are in training for the coming basketball season and the first of the local games, was held on Saturday night.

The local handicap bowling tournament is nearly finished. The three highest men are Winters, DeMol and Rigney.

The local pool tournament resulted in a tie between Herring and Fleishman, and will be played off early the coming week. This is a handicap match, Herring having 12 balls handicap on Fleishman.

In place of the tents in which the Y. M. C. A. has been conducting work at the marine camp at Corozal quarters have been secured in one of the buildings and the magazines, writing material and gramaphone have been moved there. Before two of the companies were sent back to Camp Elliott there had been an average attendance of nearly three hundred men a day, over 50 letters a day were written and all of the hundred books in the library were in circulation.

Concert

By the I. C. C. Band at Culebra, C. Z. Sunday, August 9, at 6 p. m.

PROGRAM.

1	March	*With Sword and Lance*	Starke
2	Selection	*The Red Mill*	Herbert
3	Flower song	*Delicia*	Frantzen
4	*a* Morceau characteristic	*Dance of the Bumble-bees*	Bagley
	b Schottische	*Let Me Be Your Lemon Coon*	Allen
5	Clarinet solo	*Somnambula*	Thornton
		JOHN GRAY	
6	Selection	*George Washington, Jr.*	Cohen
		BY REQUEST	
7	Air et varie	*Austrian Hymn*	Godfrey
8	Overture	*If I Were King*	Allen
9	Caprice	*Dandy and His Hobby-horse*	Pryor
10	Galop	*On Horseback*	Bendix

CHAS. E. JENNINGS, *Musical Director.*

Concerts will be given in August as follows: Bas Obispo, August 16, at 2.30 p. m.; Cristobal, August 26, at 8.15 p. m.

COMMISSION HOSPITAL SERVICE.

Ancon Hospital.

II.

In addition to the Hospital proper, described in THE CANAL RECORD of July 29, 1908, the Ancon Insane Asylum, Board of Health Laboratory, and Ancon laundry are in the jurisdiction of Ancon Hospital.

When the Americans assumed charge of the effects of the French company on May 4, 1904, there were a number of insane people in Ancon Hospital, and at other places in Panama and the Canal Zone. In the "Taft Agreement" of December 3, 1904, the United States agreed to:

> Construct, maintain and conduct a hospital or hospitals, either in the Canal Zone or the territory of the Republic, at its option, for the treatment of persons insane, or afflicted with the disease of leprosy, and the indigent sick, and the United States will accept for treatment therein such persons of said classes as the Republic may report. * * *

Under this agreement eighteen insane persons were taken to Miraflores on April 15, 1905, permission having been obtained to use buildings at that place as a temporary hospital, no separate quarters being available at Ancon. A superintendent was placed in charge under the direction of the Director of Hospitals. Ancon Insane Asylum was authorized on October 4, 1905, and on October 24 and 25, 1907, the insane at Miraflores, increased to 121 in number, were transferred to the new asylum.

There are fourteen buildings in the Ancon Asylum, including living quarters for white employes, dormitory for attendants and orderlies, male and female wards, cell buildings, dining rooms and kitchen, and a gate house, all inclosed within an eight-foot wire fence. The asylum has a capacity of 210 beds.

Most of the patients are natives of the Isthmus and West Indian negroes sent by the Republic of Panama, the Canal Zone authorities, and the Panama Railroad Company. Americans are held only until their legal residence can be ascertained or their relatives or friends located, when they are sent to the States. The asylum is in charge of a physician, assisted by a medical assistant, one female and four male trained nurses, orderlies, ward maids, and other attendants.

The Board of Health laboratory, authorized in June, 1905, is under the immediate charge of a chief of laboratory, under whom are a pathologist, a bacteriologist, a chemist, and other assistants. All pathological, toxicological, and research work, the chemical and bacteriological analyses of water from streams, reservoirs, condensers, delivery carts, and faucets, the chemical analysis of food, soils, rock, silt, and such supplies for Canal work as chemicals, oils, lubricants, and explosives, are done here. An undertaker and embalmer has charge of the morgue and cemetery, and attends to the shipping of bodies sent to the States from any part of the Canal Zone.

The laundry is well equipped with modern machinery, and in addition contains a large steam sterilizer for mattresses, pillows, and other articles that cannot be sterilized by the ordinary means. Steam for the engine and the sterilizer is furnished from a central plant. All the laundry work for Ancon Hospital, Taboga Sanitorium, and the Line dispensaries is done here, and in addition private work is done at cost for employes of the Commission and the Panama Railroad Company. The output averages 165,000 pieces a month. A superintendent is in charge, and his working force averages eighty people.

The medical examining board of the Canal Zone is composed of the Superintendent of the hospital, the chief of the surgical clinic, the chief of the medical clinic, the oculist and aurist and, in cases of mental diseases, the physician in charge of the insane asylum. This board meets twice a week, Tuesday and Thursday afternoons, and considers cases of sick employes recommended for repatriation. A special board for the examination of insane persons is composed of the Superintendent of the hospital, the chief of the medical clinic, and the physician in charge of the asylum. It meets as occasion demands for the admission of patients to the asylum. Both these boards report to the Chief Sanitary Officer.

ISTHMIAN ELECTRICAL PLANTS.

How Canal Zone Settlements are Lighted.

The electric light and power system of the Canal Zone supplies light to practically every settlement between Colon and Panama, excepting a few hamlets in the territory north of Gorgona, and the villages of Miraflores and Gatun. A temporary plant is being installed at Gatun. Twenty-four thousand lights are in use, and power is furnished for various purposes. The power plants are located at La Boca, Empire, Gorgona, Gatun, and Cristobal.

At the close of the year 1905 the only Commission buildings electrically lighted were the hospital, the Administration Building and quarters at Ancon, and the hospital, Administration Building and quarters at Colon and Cristobal. The Panama Railroad Company at that time was maintaining a small electric plant at La Boca, which consisted of a 125-k. w., 220-volt, direct current generator supplying power for the operation of the electric cranes on the docks, and a 60-k. w 2-phase 2200-volt alternating current generator supplying lights in the Commission buildings and on the railroad docks. In Colon the Panama Railroad Company's electric plant consisted of two 60-k. w., 125-cycle, 2300-volt, single phase, belted type generators, supplying lights to Panama railroad and Canal Commission buildings in and about Colon and Cristobal.

When it was decided to move the engineering headquarters from Panama to Culebra, and the auditing and disbursing offices to Empire, the purchase of two 100-k. w. machines and sufficient wiring material for the installation of 3,000 lights for these two towns was authorized. The generators were ordered in the spring of 1906, and were received on the Isthmus and installed at Empire late in the fall of the same year. Owing to the rapid growth of Culebra and Empire some 3,500 lamps were ready for the current before these generators were received. The plant was put in operation January 1, 1907.

In the early spring of 1907 the purchase of an additional 200-k. w. generator for the Empire plant was directed in order that current might be furnished from that plant to light the towns of Las Cascadas and Paraiso. This year the service of the Empire plant was extended to include Pedro Miguel, Camp Elliott and Bas Obispo, thus making the territory supplied from this center about ten miles long. The equipment consists of one 200-k. w., 2300 volt, 60-cycle General Electric generator, direct connected to a Harrisburg tandem compound 4-valve engine, and two 100-k. w., 2300-volt, 60-cycle General Electric generators, direct connected to horizontal tandem compound Ball engines. This plant serves about 11,000 incandescent lights and 81 arc-lamps, in addition to 309 horse-power for shop motors. Authority has been granted for the purchase of an additional 400-k. w. unit for the Empire plant, which will arrive on the Isthmus the first week in September. At the present time this plant is being run about 30 per cent overload during the "peak hours," from 6 to 10 p. m.

The American settlements at La Boca and Ancon grew so rapidly that by the opening of the year 1907, the plant of the Panama Railroad Company at La Boca had become quite inadequate to supply the demand for lights. A new plant was built and began supplying current in September, 1907. On July 1, 1908, this plant was turned over to the Isthmian Canal Commission, and the territory served by it was extended to include Corozal. The equipment consists of: Five 125-h. p. vertical type Manning boilers; one 300-k. w., 250-volt, direct current generator, direct connected to a Westinghouse vertical compound engine; one 125-k. w., 250-volt, direct current generator, direct connected to a Westinghouse vertical compound engine; one 200-k. w., 2-phase, 2200-volt, 60-cycle generator, direct connected to a Westinghouse compound engine; one 60-k. w., 2-phase, 2200-volt, 60-cycle generator, direct connected to a Westinghouse compound engine; one 1000-h. p. condensing apparatus. From this plant there are at present being operated about 5,000 lights, and 19 electric cranes of about 1500-h. p. motor capacity.

In 1906 a 100-k. w. generator was installed at Gorgona, and lights for the shops and other Commission buildings are supplied by it. An additional 100-k. w. unit has been authorized for this plant. The present equipment consists of two 100-k. w. direct current 220-125-volt generators, direct connected to horizontal tandem compound Ball engines. This plant is at present serving some 3,000 incandescent lights and 71 arc-lamps.

The Panama Railroad Company is preparing to move the two 60-k. w. generators mentioned above from the lighting plant on the beach at Colon to the cold storage plant, in order that the ground occupied on the beach may be used for dwellings. After this change, the cold storage plant will be equipped with two 60-k. w., 125-cycle, 2300 volt, single phase, belted type generators, and two 100-k. w., direct current, 125-volt generators, direct connected to horizontal tandem compound Ideal engines. This plant will supply about 4,000 lights in Cristobal and Colon, and electric power for the motors driving all machinery in the cold storage and allied plants.

A 50-k. w. generator, direct connected to a simple horizontal Buffalo Forge Company's engine, has been installed and will be operating this month at Gatun, supplying about 1,000 lights. The installation at Gatun, as well as the installation of the alternating current generators in the cold storage plant at Cristobal, is for temporary purposes only, as it is anticipated that all lights in Gatun, Cristobal and Colon will eventually be operated from the material-handling plant at Gatun.

RELIGIOUS WORK IN CANAL ZONE.

Churches and Work Done by Commission Chaplains.

Religious work in the Canal Zone is promoted by the Isthmian Canal Commission to the extent of maintaining thirteen chaplains of various denominations, supplying buildings in which services may be held, and permitting meetings of a religious but nonsectarian character to be held in the Commission club houses under the auspices of the Y. M. C. A. The chaplains are paid a salary and furnished quarters. They include among their number Protestant Episcopal, Roman Catholic, Baptist, Methodist Episcopal, and Wesleyan Methodist clergymen. They visit the hospitals daily, and perform such duties in connection with their calling as may be required. The Commission has built chapels at nearly all the stations in the Zone, and where there is none a suitable room for services is assigned.

In addition to the religious work aided by the Commission, a strong religious movement is maintained by various denominations and organizations. Prior to the building of the Panama railroad; the residents of the Isthmus were largely Roman Catholics, as the Panamanians now are. A Protestant Episcopal mission had been supported, however, since the early days of the railroad, and a Wesleyan Methodist mission was also established on account of the opportunity for work among the colored laborers.

Christ Episcopal Church in Colon, erected in 1864 by the Panama Railroad Company, aided by private subscriptions, was the first Protestant church on the Isthmus. It was consecrated in 1865. For some years the parish remained under the jurisdiction of the American Protestant Episcopal church. Later it was transferred to the Anglican church under the Bishop of the Falkland Islands, and then to the missionary diocese of British Honduras and Central America. In 1907 the mission was again transferred to the American church and an archdeacon appointed under the diocese of Washington. It is now under the supervision of the Bishop of Cuba.

The work of Christ Church is chiefly among the West Indians, for whose special benefit the mission was established. A small number of white residents attend the services, a few members of the congregation are natives of the Isthmus, and there is one Chinese family, but most of the active work is done by the colored people. The church is well furnished and appointed and the congregations are large. A parochial school was opened in June of this year with three teachers and about seventy pupils. The school is under the direct supervision of the rector who aids in the teaching. The rector is a hospital chaplain and makes daily visits to the white and colored wards in Colon hospital and holds services in the hospital every Sunday.

The official residence of the archdeacon is Ancon, where services are held in the Protestant chapel at the hospital. A new chapel is authorized and the corner stone will be laid during the present month. Money is being raised to erect chapels in Empire and Culebra, the sites having been granted by the Commission. There are Sunday schools connected with the missions and a woman's guild has been organized in each of them, the one at Ancon having over thirty members. Services are held every Sunday at the nine missions along the Line. There are three Protestant Episcopal clergymen on the Isthmus, including the archdeacon, and in addition one deacon and several colored catechists and lay readers.

A large and important parish is St. Paul's in Panama. The church building was erected in 1903 and consecrated by the Bishop of British Honduras one year later. There is a large congregation at every service and a Sunday school of about one hundred members with eight teachers. A woman's altar guild, woman's auxiliary and a men's club are active organizations of the parish. The organ was a gift from a friend and there is a vested choir of men and boys with a paid organist.

The Baptist church is represented by three ministers who are Commission chaplains, and have charge of the regular missions of their church. The chaplains are located at Culebra, Empire, and Gorgona, and visit the sick camps and hospitals at the smaller stations, and the missions for the colored people on the Line. At Empire there is a strong church organization with a Sunday school and Young People's Association. Services are held in the Commission club houses, but a new church room will be opened shortly. Seven regular services with preaching are held during the month. Baptist services are also held for both white and colored people at Gatun, Gorgona, and Paraiso. Work has been commenced at Cunette, near Empire, and a Sunday school will be opened there shortly. Once a week religious services are held in the Zone prisons. The chaplains distribute literature in six languages, Chinese, French, German, Italian, Spanish, and English. The Baptist mission in Culebra publishes a periodical, which is distributed among the congregation. This is the only local Protestant religious paper circulated in the Zone.

Missions for colored people are situated in Las Cascadas, Frijoles, Paraiso, and Matachin. There are a number of lay readers, and services are held regularly. The new Baptist mission in Panama under a colored missionary sent from the States by the National Baptist Convention, was started about six months ago. It has a membership of over one hundred, a Sunday school, and a Young People's Union, which meets every Sunday evening. A school is connected with the church, and by permission of the Commission a baptismal font for immersions will be built in the lot adjoining the church building.

The Wesleyan Methodist church was organized on the Isthmus in 1882, and there are two pastors, at Panama and Colon. The work is almost entirely among West Indians. In the missions at Lion Hill, Gatun, Colon, and Frijoles, services are held in buildings belonging to the church, and at Pedro Miguel, Empire, and Bohio in old French buildings. A new mission has just been opened at Tabernilla, where a tent is used for services. At Panama a new church building is in course of erection, services at present being held in an old French building near the station. There are about 700 communicants and a combined attendance of 2,000 at the various services. A Wesley Guild for young people has a large membership.

The Methodist Episcopal church is represented only in the city of Panama, where it is in charge of the American College of Panama and mission work. There is at present no presiding elder on the Isthmus, the work being in the hands of the director of the college. Bishop Frank W. Bristol is expected to pay his first official visit to the Isthmus the latter part of this year. A new church building was dedicated on August 2. It is constructed of cement blocks and has a seating capacity of 200. The basement floor is used for the college, and the third story for the residence of the pastor.

On account of the large number of Roman Catholics among the Italian and Spanish laborers, the Commission maintains four chaplains of that faith. A chaplain, who visits the camps and hospitals along the line of the Canal, lives in Panama, and local chaplains are stationed at Ancon, Culebra, and Colon. A chapel is being built at Culebra by the Catholics on a site furnished by the Commission. A Catholic chapel was part of Ancon hospital, as transferred by the French to the Americans, and it is maintained by the Commission. The cathedral and churches in Panama and Colon are also used by the Catholics of the Zone.

The Salvation Army social work was organized on the Isthmus in 1905, by a representative from the States. It is in charge of the commander for the West Indian islands and British Guiana. The resident commander has oversight of the work on the Isthmus and Costa Rica. During the past three years seven stations have been established, each having one or more outposts. The headquarters building at Cristobal was erected by the Commission last year and comprises a restaurant where meals are served at a nominal figure, a reading room, supplied with papers and magazines given by friends of the organization, a dormitory containing 48 beds, a room where men can leave their baggage in safety, and quarters for the officers. Since the opening of the institution the number of men occupying beds has averaged 100 weekly, and 200 men have visited the reading room in a week. A small fee is charged for beds, but many beds and meals are given free.

The Union Christian League is an organization of members of various denominations, whose object is to furnish religious services that will be agreeable to all Christian people, without regard to sect. The speakers at the services are ministers, laymen of any denomination, and men of distinction who may be visiting the Isthmus. In connection with the League is a Young People's Christian League which meets regularly for prayer meetings and social evenings.

The Christian Science Church was organized on the Isthmus in January, 1906, and services are held in the Commission chapel in Gorgona every Sunday morning at 8.15 o'clock. There are about 50 members.

A small number of Seventh Day Adventists in Cristobal meet for religious service on Saturday.

During 1907 the Isthmian Ministers' Association was formed, with ten charter members. The organization meets regularly for the discussion of work and to arrange co-operative plans.

A Hebrew congregation has been established over thirty years. It is called the Remnant of Israel, and has about two hundred members. Meetings are held at the residence of one of the members. The society maintains its own burial ground, and is supported by subscriptions. At Colon the Hebrew Benevolent Society, "Chezuk Emunah," has a membership of about sixty. Services are held at the Sojourners' lodge room. This society has its cemetery at Mount Hope.

The Chinese maintain a temple in Panama near the market, and meeting houses at Gorgona, Empire, and Colon. The temple at Panama is elaborately decorated with brass ornaments and carved wood. It was opened ten years ago and is supported by the merchants, who have a club room underneath the temple, and a society room situated elsewhere.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week beginning August 5

		Price
FRESH MEATS, POULTRY AND COLD MEATS.		
Beef—Sirloin roast	per lb	30
Rump roast	per lb	30
Porterhouse	per lb	30
Rib-roast, short cut (not under 3½ pounds)	per lb	24
Rib-roast, second cut (not under 3 lbs)		20
Chuck-roast	per lb	15
Soup	per lb	9
Stew	per lb	12
Corned	per lb	12, 14, 16
Suet	per lb	4
Steaks—Sirloin	per lb	30
Porterhouse	per lb	30
Rump	per lb	30
Tenderloin	per lb	30
Round	per lb	21
Veal—Cutlets	per lb	24
Short-cut chops	per lb	24
Loin	per lb	25
Entire forequarters (15 to 20 lbs)	per lb	11
For stewing	per lb	11
Mutton—Entire forequarters (not under 10 lbs)	per lb	9
Lamb—For stewing	per lb	10
Entire forequarters	per lb	10
Chops	per lb	30
Leg (6 to 8 lbs)	per lb	28
Pork—Cuts	per lb	20
Livers—Calf	each	60
Sausage—Bologna	per lb	15
Sweet bread—Veal	each	1.20
Beef	per lb	25
Pigs' tongues (salted)	per lb	15
Ox tongues	each	90
Chickens, dressed (milk-fed)	each	1.40
Chickens, large	each	1.30
Fowls, medium and large	each	$1.00 and 1.25
Ducks, fatted (fancy)	each	1.10
Suckling pigs	each	4.90
Turkeys	per lb	30
Squabs	each	45
Eggs (fresh)	per dozen	32
Capons	each	2.40
Bacon—Strips	per lb	23
English, breakfast, sliced	per lb	§26
Ham—Sugar-cured, sliced	per lb	§25
One-half, for boiling	per lb	§20
Westphalia	per lb	35
Ferris	per lb	19
Beef, salt, family	per lb	14
Salt Pork	per lb	15
DAIRY PRODUCTS.		
Butter prints prime quality	per lb	35
Cheese—Cream, Phila	each	12
Neufchatel	each	6
Young America	per lb	22
Swiss	per lb	33
Gouda	per lb	34
Edam	each	1.05
Camembert	per lb	28
McLaren's	per jar	15
Pinxter's	per tin	22
Buttermilk	bottle	15
FRUITS AND VEGETABLES.		
Pineapples	each	15
Limes	hundred	70
Oranges	dozen	18
White potatoes	per lb	3½
Onions	per lb	1½
Sweet potatoes	per lb	2½
Yams	per lb	3½

§ Sold only from cold-storage and not from Commissaries

NEW ARTICLES

		Price.
Shakers, salt and pepper	each	10
Powder, talcum, violet, Colgate's	tin	16
Powder, talcum, cashmere, Colgate's	tin	16
Sticks, shaving, Colgate's	each	15
Atomizers	each	50
Pants, riding, khaki	pair	1.70
Half hose	pair	20
Handkerchiefs, hemstitched	each	8
Wash goods	yard,	22 and 25
Skirts, cotton	each	2.25
Shoes—Men's white pearl, blu., oxf	pair	3.40
Men's white duck, blu., oxf	pair	2.20
Ladies' rubber	pair	60
Ladies' pat. Colt., blu., ties	pair	3.00
Ladies' white kid pumps with leather bow	pair	2.20
Ladies' pat. leather, blu., oxf	pair	2.70
Ladies' white duck, blu., oxf	pair	2.00
Misses' rubber	pair	50
Misses' russet, vici, blu., oxf	pair	1.40
Misses' white duck, blu., oxf	pair	90
Children's russet, vici, blu., oxf	pair	1.10
Children's white duck, blu., oxf.	pair	80
Boys' patent tips, blu., oxf	pair	3.00

The steamers of the Leyland line for New Orleans, via Kingston, Jamaica, will sail from Colon as follows: *Alexandrian*, about August 18, and *Mercian*, about August 30.

PANAMA RAILROAD COMPANY.

TIME TABLE No. 2—IN EFFECT AUGUST 2, 1908

MAIN LINE

S Stop *F Flag Station*

SOUTH BOUND No. 7 Pass. Daily ex Sun. Leave	No. 5 Pass Daily ex Sun. Leave	No. 3 Pass. Daily ex Sun. Leave	Distance from Colon. Miles	STATIONS	Distance from Panama. Miles	NORTH BOUND No. 2 Pass. Daily ex Sun. Arrive	No. 4 Pass. Daily ex Sun. Arrive	No. 6 Pass. Daily ex Sun. Arrive	No. 8 Pass. Daily ex Sun. Arrive
P. M.	A. M.	A. M.				A. M.	P. M.	P. M.	P. M.
4.35	10.30	5.30	.00	† COLON	47.58	9.05	1.00	3.50	8.00
s 4.37	s 10.33	s 5.32	0.42	Cristobal	47.16	s 9.03	s 12.57	s 3.47	s 7.57
s 4.43	f 10.37	s 5.38	1.90	Mount Hope	45.68	s 8.58	12.53	3.42	s 7.52
f 4.48	10.43	f 5.44	4.52	Mindi	43.06	f 8.50	f 12.46	f 3.35	f 7.45
s 4.55	s 10.50	s 5.50	7.08	Gatun	40.50	s 8.43	s 12.40	s 3.30	s 7.40
f 5.03	f 11.00	5.58	10.68	Lion Hill	36.90	8.33	f 12.30	3.19	f 7.29
f 5.08	f 11.06	f 6.03	12.75	Ahorca Lagarto	34.83	8.27	f 12.24	3.13	f 7.22
s 5.15	s 11.13	s 6.10	15.52	† Bohio	32.06	s 8.20	s 12.17	s 3.05	s 7.15
s 5.23	s 11.22	6.18	18.75	† Frijoles	28.83	s 8.10	f 12.08	2.58	s 7.06
							P. M.		
s 5.31	s 11.31	s 6.26	21.62	Tabernilla	25.96	s 8.03	s 11.58	s 2.50	s 6.58
s 5.37	s 11.37	s 6.32	23.56	San Pablo	24.02	s 7.58	s 11.52	s 2.46	s 6.53
f 5.40	f 11.40	....	24.57	Bailamonos	23.01	....	f 11.48	2.43	f 6.53
s 5.45	s 11.45	s 6.40	26.02	† Mamei	21.56	s 7.50	s 11.45	2.40	f 6.47
s 5.53	s 11.53	s 6.49	28.53	† Gorgona	19.05	s 7.41	s 11.37	s 2.32	s 6.37
s 5.58	s 11.58	s 6.54	29.90	† Matachin	17.68	s 7.36	s 11.32	2.27	s 6.32
	P. M.								
s 6.03	s 12.03	s 6.59	31.26	Bas Obispo	16.32	s 7.32	s 11.27	s 2.23	s 6.27
s 6.09	s 12.09	s 7.05	32.83	Las Cascadas	14.75	s 7.26	s 11.20	s 2.17	s 6.21
s 6.17	s 12.17	s 7.14	35.18	† Empire	12.40	s 7.17	s 11.13	s 2.10	s 6.14
s 6.22	s 12.22	s 7.19	36.18	Culebra	11.40	s 7.10	11.08	s 2.00	s 6.10
6.30	12.30	7.26	39.04	Cucaracha	8.54	7.00	10.57	1.51	5.57
s 6.32	s 12.32	s 7.28	39.78	Paraiso	7.80	s 6.58	f 10.56	1.50	f 5.56
s 6.37	s 12.38	s 7.31	40.72	Pedro Miguel	6.86	s 6.54	s 10.52	s 1.48	s 5.52
s 6.42	s 12.43	s 7.35	42.08	Miraflores	5.50	s 6.50	s 10.48	f 1.44	s 5.48
s 6.50	s 12.50	s 7.40	44.55	† Corozal	3.03	s 6.43	s 10.40	s 1.38	s 5.40
6.55	12.56	7.45	46.75	† La Boca Junction	0.83	6.38	10.33	1.32	5.33
7.00	1.00	7.50	47.58	† PANAMA	00	6.35	10.30	1.30	5.30
P. M. Arrive	P. M. Arrive	A. M. Arrive		*† Telegraph Stations.*		A. M. Leave	A. M. Leave	P. M. Leave	P. M. Leave

MOVEMENT OF OCEAN VESSELS.

The following is a list of the sailings of the Panama Railroad Steamship Company, of the Royal Mail Steam Packet Company, of the Hamburg-American Line and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON.

Allianca	P. R. R.	Monday	Aug. 3
Finance	P. R. R.	Friday	Aug. 7
Trent	R.-M.	Saturday	Aug. 8
Panama	P. R. R.	Wednesday	Aug. 12
Pr. Aug. Wilhelm	H.-A.	Saturday	Aug. 15
Advance	P. R. R.	Monday	Aug. 17
Colon	P. R. R.	Saturday	Aug. 22
Tagus	R. M.	Saturday	Aug. 22
Allianca	P. R. R.	Thursday	Aug. 27
Prinz Joachim	H.-A.	Saturday	Aug. 29
Finance	P. R. R.	Tuesday	Sept. 1
Esperanza	P. R. R.	Saturday	Sept. 5
Magdalena	R.-M.	Saturday	Sept. 5
Colon	P. R. R.	Thursday	Sept. 10
Pr. Aug. Wilhelm	H.-A.	Saturday	Sept. 12
Advance	P. R. R.	Tuesday	Sept. 15
Orinoco	R.-M.	Saturday	Sept. 19
Allianca	P. R. R.	Monday	Sept. 21
Finance	P. R. R.	Saturday	Sept. 26
Prinz Joachim	H.-A.	Saturday	Sept. 26
Panama	P. R. R.	Thursday	Oct. 1
Atrato	R. M.	Saturday	Oct. 3
Colon	P. R. R.	Tuesday	Oct. 3

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston enroute to Colon.

FROM COLON TO NEW YORK.

Colon	P. R. R.	Wednesday	Aug. 5
Advance	P. R. R.	Monday	Aug. 10
Tagus	R. M.	Tuesday	Aug. 11
Allianca	P. R. R.	Saturday	Aug. 15
Prinz Joachim	H. A.	Tuesday	Aug. 18
Finance	P. R. R.	Thursday	Aug. 20
Panama	P. R. R.	Tuesday	Aug. 25
Magdalena	R. M.	Tuesday	Aug. 25
Advance	P. R. R.	Sunday	Aug. 30
Pr. Aug. Wilhelm	H. A.	Tuesday	Sept. 1
Colon	P. R. R.	Friday	Sept. 4
Orinoco	R.-M.	Tuesday	Sept. 8
Allianca	P. R. R.	Wednesday	Sept. 9
Finance	P. R. R.	Monday	Sept. 14
Prinz Joachim	H. A.	Tuesday	Sept. 15
Esperanza	P. R. R.	Friday	Sept. 18
Atrato	R.-M.	Tuesday	Sept. 22
Colon	P. R. R.	Wednesday	Sept. 23
Advance	P. R. R.	Monday	Sept. 28
Pr. Aug. Wilhelm	H.-A.	Tuesday	Sept. 29
Allianca	P. R. R.	Saturday	Oct. 3
Clyde	R.-M.	Tuesday	Oct. 6
Finance	P. R. R.	Thursday	Oct. 8
Panama	P. R. R.	Tuesday	Oct. 13
Prinz Joachim	H.-A.	Tuesday	Oct. 13
Colon	P. R. R.	Monday	Oct. 19
Tagus	R.-M.	Tuesday	Oct. 20

FROM NEW ORLEANS TO COLON.

Harry T. Inge	U.F.C.	Saturday	Aug. 8
Ellis	U.F.C.	Saturday	Aug. 15
Cartago	U.F.C.	Saturday	Aug. 22
Harry T. Inge	U.F.C.	Saturday	Aug. 29
Ellis	U.F.C.	Saturday	Sept. 5
Cartago	U.F.C.	Saturday	Sept. 12

FROM COLON TO NEW ORLEANS.

Ellis	U.F.C.	Tuesday	Aug. 4
Cartago	U.F.C.	Tuesday	Aug. 11
Harry T. Inge	U.F.C.	Tuesday	Aug. 18
Ellis	U.F.C.	Tuesday	Aug. 25
Cartago	U.F.C.	Tuesday	Sept. 1
Harry T. Inge	U.F.C.	Tuesday	Sept. 8
Ellis	U.F.C.	Tuesday	Sept. 15

FROM COLON TO BARBADOS, CALLING AT TRINIDAD.

Atrato	R.-M.	Tuesday	Aug. 4
Trent	R.-M.	Tuesday	Aug. 18
Tagus	R.-M.	Tuesday	Sept. 1

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company dispatches a steamer about every ten days from Colon via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan ports, Martinique and Guadeloupe on the 3d and 20th of each month.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, AUGUST 12, 1908. No. 50.

The Canal Record

Published weekly under the authority and supervision of the
ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each.

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Permanent Docks at Cristobal.

Authority has been granted for the construction of permanent docks at Cristobal under a provision of the Sundry Civil Act for 1909, which reads:

> *Sixth*—To continue the equipment and construction of the Panama railroad, to be disbursed directly under the Isthmian Canal Commission. * * *

The new dock will be located across the arm of Limon bay, known as Folks river, between Docks 11 and 14. Dock 14, which is a temporary structure, will be extended north about 600 feet by the Isthmian Canal Commission. From this point the Panama Railroad Company will build the permanent dock, a distance of about 2,100 feet to Dock 11. When this portion is finished Dock 11 will be torn away and replaced by a continuation of the new structure. This will give about 3,000 feet of permanent dock at Cristobal. Soundings are being made with diamond drills to determine the character of material in the foundation, so that the dock structure, which will be of steel and concrete, may be designed. It is estimated that the improvements will cost about $500,000.

Slide at Miraflores Tunnel.

A slide involving the south slope of the hill through which runs Miraflores tunnel, on the relocated line of the Panama railroad, has been developed by the recent rains, and a mass of earth aggregating about 150,000 cubic yards has begun to slip towards the end and to the east of the center line of the tunnel. The slide had advanced over a foot up to August 11, and had carried the timber lining of the earth section with it. The lining is being repaired by placing additional timbers where the separation occurred.

On the completion of the excavation and the timbering, July 9, the work of putting in the concrete lining was begun about two hundred feet from the south portal, where the earth and rock sections join. It was the intention to work from this place towards each portal. In the efforts to check the slide the concreting has been discontinued, and gangs have been set at work driving piles and building a concrete retaining wall at the foot of the slope of the sliding material. It is thought that if the slide can be controlled until the beginning of the dry season, the lining can be carried forward from the north or rock end and completed before the next rainy season. If it is found impossible to stop the slide, it is proposed to excavate, either by steam shovels or by hydraulic power, as far as is necessary, and then extend the barrel of the tunnel far enough to hold the hillside at the very flat surface which it will assume.

Miles of Borings.

From the time the Americans began a systematic investigation on the Isthmus in 1904, up to July 1, 1908, 36.12 miles of borings were made to determine the geological structure along the line of the Canal. A hole has been sunk at every kilometer between Gatun and Pedro Miguel, and extensive borings have been made on the sites of the locks at Gatun, Miraflores, and Pedro Miguel, and at the abandoned lock site at Sosa. In Gatun and vicinity 79,511 feet of borings have been made, and on the sites of the Pacific locks and dams the borings amount to 20,017 feet. By means of these borings suitable foundations for locks and dams have been found, and the character of the excavation has been determined in advance of the actual excavating work.

A Record Rainfall.

The rainfall at Bohio on August 7 was the heaviest for one shower recorded on the Isthmus since the American occupation. Between 2.30 o'clock in the afternoon and 5.30 o'clock, 7.62 inches fell, and the total for the storm, which began about noon and lasted almost continuously until 9.45 p.m., was 8.82 inches. The maximum for ten minutes was 1.15 inches, and the maximun for one hour was 4.50 inches. Between Bohio and Frijoles a part of the roadbed of the Panama railroad was washed away, and in consequence the evening passenger trains were delayed about four hours. Not far from the washout a portion of the hill along the side of which the railroad runs was washed upon the tracks, and the main of the Union Oil Company pipe line was broken. A portion of the bank of the Chagres river back of Frijoles was washed away, and as a result the water in the river was brought close up to one of the old French ladder dredges which is being pulled out of the jungle.

While the precipitation was greatest at Bohio, the storm was general on the Isthmus. At Porto Bello the total fall was 4.56 inches, the maximum for one hour was 3.71 inches, and for ten minutes 1.15 inches. At Cristobal the total precipitation was 2.28 inches, the maximum in one hour, 1.12 inches, and the maximum for ten minutes 0.38 of an inch. In Ancon the total was 3.10 inches for the storm; the maximum for one hour, 2.89 inches, and the maximum for ten minutes, 1.20 inches.

In Culebra Cut the storm was comparatively light. In fact the precipitation was heaviest at points where little or no excavation is in progress. Except for momentary trouble with sunken tracks and the natural difficulty of handling mud the work proceeded as usual the day after the storm.

The heaviest rainfall for 24 hours since American occupation was 10.48 at Gatun in December, 1906.

A statement of precipitation in previous heavy storms compared with that of August 7, is appended:

Date—	*Station—*	*Max. in 1 hour.*	*Max. in 10 min*
April, 1906	Naos	3.39	1.01
July, 1906	Culebra	....	0.98
August, 1907	Bas Obispo	3.14	...
September, 1907	Bohio	....	1.00
October, 1907	Camacho	3.43	....
October, 1907	Culebra	3.68	.....
August 7, 1908	**Bohio**	**4.50**	**1.15**

Rainfall, August 1 to 8, 1908, Inclusive

(MIDNIGHT TO MIDNIGHT.)

Stations	Maximum in one day.	Total.
Atlantic Division—		
Cristobal	2.28	5.97
Brazos Brook	3.50	7.22
Gatun	3.64	6.12
Bohio	8.82	10.98
Central Division—		
Tabernilla	1.63	3.44
San Pablo	.75	2.56
Bas Obispo	2.15	3.38
Gamboa	1.60	4.35
Empire	2.17	2.85
Camacho	2.36	3.31
Culebra	1.56	2.75
Rio Grande	1.58	2.92
Pacific Division—		
Pedro Miguel	1.59	4.23
La Boca	3.43	6.40
Ancon	3.10	5.93
Upper Chagres.		
Alhajuela	1.28	1.28

New Stone Crusher at Bas Obispo.

The new stone crusher at Bas Obispo will be ready for operation in September. It is located on the 95-foot level on the east berm of the Canal, on which is the relocated line of the Panama railroad. It will have a capacity of 1,000 cubic yards of crushed rock a day. An incline from the Cut has been built, which will make it possible to deliver the rock in large quantities and without any expense, as it will be as cheap to send rock to the crusher as to the dump. The quantity of material available is unlimited, and the grades are sufficiently varied for all purposes. For ordinary ballasting any of the rock now being taken from the Cut will do, and when extra hard rock is desired for highways and concrete work, stone from the trap dykes at Empire and Culebra will be

NOTES OF PROGRESS.

(Continued)

crushed. The product of the crusher will be used in ballasting on the relocated line of the Panama railroad, ballasting the tracks for the spoil trains, making highways, and for concrete work. The old Bas Obispo crusher will be closed down, and if the new crusher can supply all demands the present plant at Rio Grande will be abandoned.

Avenue B, Panama.

An extension of Avenue B in Panama, which is being built by the Commission for the Panamanian Government, is nearing completion. It runs from the Panama railroad station to Fifteenth street, a distance of 1,750 feet, and is 46 feet wide between building lines and 36 feet from curb to curb, except immediately in front of the Panama railroad freight depot, where it is 33 feet between curbs. An 8-inch sewer and an 8-inch water main run throughout, and a storm sewer 2 feet 6 inches in diameter will take the surface water through the railroad yards to the sea. The road will be macadamized. The opening of the new street will place sanitary sewerage at the disposal of the section between the railroad yards and Central avenue, will relieve Central avenue of the floods that inundate it after every hard shower by furnishing an outlet for the water through lateral streets, will relieve the congestion in travel along Central avenue, as it is a more direct route to the center of the city, and will add to the facilities for handling freight at the Panama railroad freight depot.

Gatun Lock Site and Receiving Dock.

Six wash borings recently made on the site of the locks at Gatun, supplementing those previously made, furnish further evidence that a suitable foundation for the locks exists at that point. The deepest boring went down to 41 feet 7 inches below sea level.

The excavation at the south end of the south or upstream lock is practically down to grade. Three 70-ton shovels are at work on the lock site, and the excavation is proceeding satisfactorily.

A steam shovel was set at work August 5 clearing the site for the receiving dock, on which supplies for the concrete work in the locks will be delivered. The dock will be 500 feet long, and will be located 1,000 feet from the north end of the lock site on a channel 1,800 feet long, 150 feet wide and 15 feet deep, which is being dredged near the end of the old French canal. On the east end of the dock will be a storehouse for cement, with a capacity of 100,000 barrels The dock will be connected with the lock site by cableways. Material for two pile drivers with 53-feet leads, to be used in the construction of the receiving dock, have arrived on the Isthmus.

Repairs to the "Colon."

The Panama railroad steamship *Colon*, Capt. John F. Skillings, arrived at Cristobal on Wednesday, July 29, after being out of commission since the first week in April undergoing repairs, and is now practically as good as when first built.

Sixteen new staterooms for passengers have been added to the upper deck. All the staterooms are fitted with modern improvements, including folding wash stands and electric lights and fans, and many of them have ventilators in the ceiling. Three staterooms for officers have been built on the hurricane deck. The toilet arrangements have been improved and shower baths have been added to the bath rooms. The dining saloon has been enlarged and will seat about 200 people. New boilers have been installed, the machinery thoroughly overhauled, and the entire ship painted and refurnished. The vessel has a crew of 110 men all told and a capacity of 180 first-class and 26 steerage passengers.

New Town Sites.

A new town site has been laid off at Paraiso back of the section that is effected by the slide. The native houses caught in the slide will be moved to this new site, where provision has been made for 120 houses.

A new town site for natives has been laid off at Empire, about one-quarter of a mile west of the disbursing office.

July Police Report.

The July report of the Chief of Police of the Canal Zone shows a decrease in the number of arrests for the month, 536 having been made in July as compared with 573 in June. Of the 536 persons arrested 483 were men, and 53 were women. There were 40 different offenses and 45 different nationalities were represented. They were divided among the towns of the Zone as follows: Ancon, 40; La Boca, 24; Corozal, 2; Miraflores, 3; Pedro Miguel, 7; Paraiso, 18; Culebra, 54; Empire, 108; Las Cascadas, 17; Bas Obispo, 19; Gorgona, 77; San Pablo, 17; Tabernilla, 29; Bohio, 3; Gatun, 43; Cristobal, 75.

There were 149 prisoners in the district jails on July 31, a decrease of 7 for the month. The number of convicts at the Zone penitentiary on July 31, was 111, an increase of 3 for the month. The value of the work performed by the convicts on roads, etc., was $1,685.25. The total effective police force on July 31, was 148, and the July pay roll amounted to $16,650.40.

The coroner held inquests on 10 cases of accidental deaths, 4 deaths being due to drowning, 3 to railroad accidents and there were 2 suicides.

Three New Barges.

Three steel barges arrived at Cristobal on August 1, having been towed from Newport News by the sea-going tug *Walter E. Luckenbach*. They are each 156 feet long, 35 feet wide, 12 feet deep and have a capacity of 1,000 tons. This is a portion of the fleet of 14 barges, eight of which have been delivered on the Isthmus, to be used in transporting stone, sand and cement to Gatun during the construction of the locks and spillway.

Hours for Visitors at Ancon Hospital.

The attention of visitors to patients in Ancon hospital is called to the following notice:

"Visitors will be allowed to see patients in the private rooms and wards of Ancon hospital on Tuesdays, Thursdays, and Saturdays, between the hours of 2 and 4.30 p. m., and on Sundays between 9.30 and 11.30 a. m., and 2.30 and 4.30 p. m.

"Only the immediate relatives of patients will be allowed to see them at other hours and then only with the permission of the Superintendent and the sanction of the physician in charge."

Examination for Physician.

A local examination for the position of physician in the service of the Isthmian Canal Commission, entrance salary $1,800 per annum, will be held October 14, 1908, the exact hour and place of the examination to be announced later. The Manual of Examinations, containing all necessary information and Application Form, may be obtained from the Secretary of the Isthmian Civil Service Board, office of the Chairman, Culebra, Canal Zone.

Applicants for Married Quarters.

DISTRICT QUARTERMASTERS:

You will note the following, which has been addressed to me by the Chairman of the Commission:

> In accordance with your recommendation, which has my approval, please issue instructions so that two lists of applicants for married quarters will be kept at all points, viz.:
>
> List No. 1—For men who entered the service prior to January 1, 1908.
>
> List No. 2—For men who entered the service after January 1, 1908.
>
> Whenever vacancies occur and there are no applicants on List No. 1, quarters shall be assigned to the man, or men, first on List No. 2; provided that if at a later date applications from List No. 1 are received, they take precedence over the entire List No. 2.

I find there has been no fixed practice about receiving applications from men who entered the service since January 1, 1908. No general instructions have been issued from this office on this point heretofore.

As all employes hired since January 1 have undoubtedly not had the opportunity to submit applications, you are directed to receive applications from all such men, from August 15 to August 25, inclusive, and to arrange all such applications according to length of service. This will include the applications already received and on your file. After August 25 applications will be registered according to date of receipt as has been the custom heretofore.

Paste a copy of this letter on your bulletin board and arrange to give the matter as much publicity as possible.

Respectfully,

C. A. DEVOL,
Chief Quartermaster.

Culebra, August 6, 1908.

The excavation for the foundation of the new magazine near Mindi was finished on August 6, and the construction of the building begun.

The Lirio planing mill near Culebra, was transferred on August 1, 1908, from the Division of Building Construction to the Division of Material and Supplies.

Bridge 51, on which the Panama railroad crosses the Comacho river at Bas Obispo, is being filled. The river is now running through the old French diversion tunnel into the Chagres.

Concert.

By the I. C. C. Band at Bas Obispo, Sunday, August 16, at 2.30 p. m.:

PROGRAM.

1	March	*Walamere.*	Losey
2	Selection	*The Soul Kiss*	Levi
3	*a* Spanish waltz	*Senora*	Nathan
	b Mazurka	*Heather Bells*	Losey
4	Morceau characteristic	*Dawn of Love*	Bendix
5	Barytone solo	*The Palms*	Faure
	JOHN E. SPROWLER.		
6	March	*Nibelungen*	Wagner
7	Intermezzo	*Merry Widow*	Lohar
8	Overture	*Orpheus*	Offenbach
9	Descriptive	*Indian War Dance*	Bellstedt
10	Galop	*Crescent*	Rollinson

CHAS. E. JENNINGS, *Musical Director.*

TRANSPORTATION IN CULEBRA CUT

How the Spoil Trains are Kept Moving.

On an average day in the month of July 55,427 cubic yards of rock and earth were taken out of Culebra Cut. Expressed in terms that are more intelligible to the average man 27,713 two-horse loads of material were removed on this average day. To dislodge and lift this material from its place was a matter of dynamite and steam shovels; to remove it from the Cut was a problem of transportation.

The Cut is 9 miles long, extending from Bas Obispo on the north to Pedro Miguel on the south. At Lirio, near Culebra, about half way from Bas Obispo to Pedro Miguel, is the highest point, and the excavation is carried on in such a way that trains hauling spoil from either side of this summit run out of the Cut to the dumps on a down grade. For transportation purposes, then, the Cut is divided into the north slope and the south slope.

In the north slope 21 steam shovels are at work, loading cars on 14 tracks. A train of empty cars runs into the Cut on an upgrade track and at the summit starts back on a track running downgrade. It stops alongside a steam shovel until the cars are loaded, or if several shovels are loading on one track the train loads at the south shovels until another empty train arrives and then moves down to the next shovels. The train moves on past the series of shovels loading on that track, making what is known as the "run around." When they leave the last shovel all the cars are filled with rock and earth. Always on the downgrade, the train then runs to one of the five dumping grounds where spoil from the north end of the Cut is left. At the dumps the Lidgerwood cars are turned over to one of the dump engines, the unloader and plows are adjusted, the cable stretched, and the unloading begun; or, in case of Western dump trains the cars are dumped without the change of engines. Meanwhile the engine that hauled the Lidgerwood train from the steam shovels has coupled on to a train of "empties," as the empty cars are called, and pushes it to the Whitehouse yards where the "bad orders" (cars injured in the unloading process or some other way) are taken out and good cars are substituted. The train is then pushed up the "empty" track to the summit, and the process is repeated.

The largest of the dumping grounds to which spoil from the north slope is hauled is located at Tabernilla where six dumps are in use. From the summit to these dumps is 14½ miles. On a day when all works well, and that is the usual day, 50 trains of 16 wooden cars, 20 yards capacity each, are unloaded at Tabernilla, by four Lidgerwood unloaders. The material is spread by two new McGann spreaders. Two track shifters, one pusher engine, and one switch engine complete the equipment at these dumps. Only Lidgerwood trains are unloaded at Tabernilla.

It is a 10-mile haul from Culebra to the dumps at Mamei, where four or five trains of 25 cars of the Western dump type, 17 cubic yards capacity, or 30 cars of the small type, 10 cubic yards, are unloaded each day. There are three dumps at Gorgona, eight miles from the summit at Empire Eight Lidgerwood trains of 16 cars each, and eight trains of 25 large Western dump cars each are ordinarily unloaded there daily. The equipment at Gorgona consists of one switch engine, one Lidgerwood unloader, and one spreader. One track shifter serves the dumps at Gorgona and Mamei, and also the local dump at Matachin. From Empire to the Culebra "Y," by the route the spoil trains take, leaving the Cut at Bridge 52 and backing up the main line of the Panama railroad to Culebra, is 6½ miles. Fifteen trains of 15 ten-yard Western dump cars each are unloaded at this dump daily. One spreader and one track shifter are at work here. The new dumping grounds opened at Gamboa are only 3 miles from the summit. In addition to the five dumping grounds used only for disposing of material, the Gatun Dam site is used as a dump for Bas Obispo rock. Three trains haul 75 seventeen-yard Western dump cars of rock to Gatun daily, where the engineers on the dam construction place it on the south toe of the dam. This is a 24-mile haul.

All trains loaded between the summit and Bridge 52, which is 1½ miles north of Las Cascadas, go out of the Cut at Bridge 52, and those loaded north of that point leave the Cut at Matachin. The "empties" enter the Cut on the incline back of Empire at Tower 2. At this tower is the yardmaster who controls the trains for the north slope, receiving his orders direct from the chief dispatcher in the office of A. V. Sessions, superintendent of transportation, at the Central Division headquarters at Empire. North of Tower 2, in a series at intervals of 2,000 feet are towers 1, A, B, C, and D, all connected by telephone with the yardmaster's office. The yardmaster at Bas Obispo, who controls the movement of trains north of Bridge 52, and the yardmaster at Las Cascadas, who looks after the "empties" and directs the housing of the engines at noon and night, are also connected by telephone with the yardmaster's office at Tower 2. If there is any delay in the movement of trains it is known immediately at the office of the Superintendent of Transportation in Empire, and all emergencies are bent toward removing the cause, for the trains move after one another at about three minute intervals, and a delay of more than a few minutes may mean that all the trains, the steam shovels, and the forces in the Cut, on the trains, and at the dumps may be idle.

On the north slope are also two Western dump trains, serving a shovel at work on the Obispo Diversion canal on the east side of the Cut; and a coal train that runs each night carrying coal to the shovels between Bas Obispo and the summit.

The transportation equipment for the north slope of the Cut consists of 33 American engines hauling Lidgerwood trains, 10 engines hauling Western dump trains, two switch engines at Bas Obispo and Culebra, and one each at Las Cascadas, Whitehouse, and Empire; 750 Lidgerwood cars, and 350 of the Western dump pattern.

The method of handling the spoil trains on the south slope is the same as on the north. On the edge of the Cut, at Contractor's Hill is the office of the yardmaster who governs the movement of the trains. He has assistants stationed at Tower 3, and Tower 4 in the bottom of the Cut, at Cucaracha slide, Paraiso tower, the point where the Panama railroad crosses the Canal at Paraiso, Pedro Miguel, Miraflores, and La Boca. The loaded trains go through the bottom of the Cut to Pedro Miguel yard where they run on to the main line of the Panama railroad. The yardmasters at Miraflores and La Boca keep the Pedro Miguel yardmaster informed of the progress of unloading on the dumps, and he despatches the trains to the most convenient point. On the return the "empties" stop at Pedro Miguel where the "bad orders" are replaced by good cars. The trains then take what is known as "the high line" and enter the Cut at Paraiso by way of an incline recently built. From this point they are placed to shovels by the yardmaster at Contractor's Hill.

Fifty Lidgerwood trains of 16 cars to a train, and six Western dump trains, of 30 10-yard cars each, are unloaded at the Miraflores and La Boca dumping grounds daily. At La Boca there are eight dumps, including the trestle dump for the breakwater to Naos Island. Three unloaders, two spreaders, and one track shifter are in use at La Boca. These dumps are about 13 miles from the summit at Culebra. There are six dumps at Miraflores, and three unloaders, one spreader, and one track shifter are in use there. In addition to trains going to these dumps three trains of Western dump cars run daily to Culebra "Y."

The transportation equipment for the south slope of Culebra Cut consists of 38 engines for Lidgerwood trains, three for Western dump trains, one for the night coal train, two switch engines at Pedro Miguel, and one at Paraiso, and one for the labor train, 600 hundred Lidgerwood cars and 100 Western dump cars.

The transportation equipment for the whole Cut is made up of—

Locomotives: Class 600, Brooke, 17; Class 300, Baldwins, 27; Class 200, Cooke, 91. Cars: Lidgerwood, 1,500; Western dump type, 430.

Each train crew is composed of a white engineer, conductor, and flagman, and a negro fireman, and a negro brakeman. The force employed under the Superintendent of Transportation consists of: 165 engineers, 160 conductors, 150 trainmen, 20 yardmasters, and 26 assistant yardmasters.

Examination for Clerk.

A local examination for the position of clerk in the service of the Isthmian Canal Commission will be held Sunday, September 13, 1908. The exact hour and place of the examination will be announced later. Copies of the Manual of Examinations, containing all necessary information and sample questions, and copies of the prescribed application form, will be furnished upon written request by the Secretary of the Isthmian Civil Service Board, Office of the Chairman, Culebra, Canal Zone.

The examination is open to citizens of the United States between the ages of 20 and 45 years. Persons intending to enter the examination should file their applications at once, in order that requisition may be made for sufficient papers and other necessary arrangements completed by the Board of Examiners.

LOST—A No. 1 Premo camera, with pack film holder and plate holder enclosed in a leather case. Finder will please return to H E. Bovay, Ancon, and receive reward

SOCAL LIFE OF THE ZONE.

Women's Clubs and Other Features.

The regular meeting of the Zone Federation of Women's Clubs will be held October 1, at Gorgona. The business meeting at 1 o'clock will be devoted to the regular reports and the report of the delegation to the Boston Biennial. At 3 o'clock a social session will be held.

At a meeting of the executive board of the Canal Zone Federation of Women's Clubs held at Cristobal August 3, Mrs. E. Lewis Baker was made fourth vice-president in the place of Mrs. Sumner Coolidge, resigned, and Mrs. Frederick W. Mears, corresponding secretary, in the place of Mrs. Baker.

The Las Cascadas Woman's Club met on Thursday, August 6, with the second vice-president, Mrs. C. W. Decker, in the chair. Monthly reports of the treasurer showed that the club is in prosperous condition. The committees elected for the month were: Visiting, Mrs. T. W. Williamson, Mrs. C. L. Merry; entertainment, Mrs. C. R. Lingo, Mrs. F. R. Walraven, Mrs. T. F. Stocchini, Mrs. W. M. Bowers, and Mrs. S. W. Hutten. Four names were added to the membership list and several applications were presented.

The Gorgona Woman's Club met in special session on Thursday, August 5, with the president of the Federation, Mrs. Lorin C. Collins, as guest. The business meeting was devoted to the reports of the various committees. The home committee has arranged a program for September 15, which will consist of matters pertaining to the home and interesting to homemaker. A question box will be one of the features, and all members are expected to take an active part in discussions and questions. The program on the first Tuesday of each month will be in charge of the music and literature department combined. The entertainment arranged for the first Tuesday in September will be mainly musical, with literary selections as a subordinate feature, and the first Tuesday in October a literary program, with selections on stringed instruments, will be given.

In her short talk Mrs. Collins gave an outline of the ideal club as an organization that is doing something worth while, something that stands for the betterment of the individual, the home, and the community, and emphasized the responsibilities and obligations of the Zone clubs as members of the General Federation. She urged the necessity of keeping a high standard in department and cooperative work, and not allowing the organization to become a purely social or card club. Study and public work, in the hands of careful and tactful committees, effort toward individual improvement and simplicity of living, were all set forth as worthy work. Organized as the women's clubs are, for the purpose of encouraging social intercourse among women, members were reminded that visiting the strangers and newcomers was a special part of club life in the Zone, and the clubs should be general missionaries in such work. The address of the president was supplemented by a few remarks from Mrs. Ament, who said that membership in the General Federation means work if the clubs wish to keep up to its standard, and that study and individual improvement were among the many duties of such membership. Refreshments were served and the usual social half hour was pleasantly spent. The club will hold its regular meeting, with election of officers, on Thursday, August 20.

Mrs. Collins will visit the Paraiso Woman's Club on August 13 and the Las Cascadas club on August 20.

The Ancon Woman's Club held its business meeting on Wednesday, August 5, the president, Mrs. Charles Boxer, in the chair. The principal event of the afternoon was the adoption by a unanimous vote of the revised constitution and by-laws. They will go into effect at the annual meeting the first Wednesday in October. The work of establishing a public library for Ancon, which owes its inception to the educational department, was formally transferred to the club. All the departments will contribute toward the fund, and the club is to be among the sponsors for the forming of the library association. The home department is arranging a sale of fancy articles to be contributed by its members and their friends, to take place before Christmas. The meetings of the educational department have been suspended until August 20, when the department will meet at the residence of Mrs. Dozier, Tivoli Hill. The philanthropy department reported visits to the insane wards and distribution of books to the patients. The committee has arranged to pay visits to the wards at least once a month.

The resignation of the recording secretary, Mrs. Charles Jewett, was accepted, owing to her absence from the Isthmus, but no further action was taken. The annual meeting, with election of officers, will take place in October.

The card party given by the Ancon Woman's Club on August 6, in aid of the library fund, was well attended. The rooms over the offices of the Quartermaster were decorated with palms and flags. Nine whist tables were occupied and the tables provided for other games were also filled. A considerable sum was realized.

In connection with the Protestant Episcopal Church, which is being established in Cristobal, a woman's guild will be formed for the purpose of furthering the work. Services are held on each Sunday evening at the court house, and efforts are to be made to raise a fund for building a church.

Resolutions of Sympathy.

THE CANAL RECORD:

WHEREAS, It has pleased the Great Spirit in His infinite wisdom to call from the ranks of our tribe, to the hunting grounds of his fathers, Brother M. L. Doyle, and

WHEREAS, Although we mourn the loss of one whom in life we held as a friend and a brother, we humbly submit to Him who has called our brother's spirit to a life beyond the grave; therefore, be it

Resolved, That we, Cocles Tribe, No. 3, Improved Order of Red Men, pay a tribute to his memory by expressing our sorrow and extending deepest sympathy to his relatives and friends; and be it further

Resolved, That our charter be draped for a period of thirty days, and that these resolutions be spread on our minutes, and be published.

FRED K. TURNER,
Sachem.
A. T. HOLMES,
Chief of Records.

Empire, August 6, 1908.

PERSONAL.

Hon. Leslie Combs, American Minister to Peru, accompanied by Mrs. Combs, arrived on the Isthmus on the *Allianca* August 10, and sailed for Lima on the *Huasco* on August 11.

Mr. and Mrs. Joseph Bucklin Bishop, accompanied by their son and daughter, arrived on the Isthmus on the *Allianca* August 10, from a leave of two months' absence in the States.

J. G. Holcombe, division engineer, in charge of the Division of Municipal Engineering which was abolished August 1, has entered into a contract with the Panamanian Government under which he is to act as Chief Engineer and Director of Public Works of the Republic of Panama for a term of two years.

Among the passengers on the *Allianca*, which arrived at Colon August 10, were Dr. W. F. Smith and Mrs. Smith of Gorgona, Mrs. Rossell, wife of Lieut. Joseph A. Rossell of Camp Elliott, and Mrs. Barnes, wife of Lieut. John B. Barnes, Fifth Infantry, U. S. A., lieutenant of Canal Zone Police.

Mr. P. O. Wright, jr., of Culebra sailed on the United Fruit Company's steamship *Ellis* on August 4 for a leave of absence of six weeks, to be spent in Costa Rica.

Lieut. Col. E. K. Cole, Capts. R. H. Dunlap, J. F. McGill and A. S. Williams, Lieuts. Giles Bishop, jr., C. T. Westcott, jr., H. K. Kipp, Seth Williams, W. P. Upsher, C. R. Sanderson, E. P. Moses and E. A. Osterman and ninety-four enlisted men of the United States Marine Corps, who have recently been stationed on the Isthmus, returned to the States on the *Esperanza* on July 31.

Among the passengers on the *Colon*, which sailed from Cristobal on August 5, were: Dr. G. H. Crabtree of Culebra; Dr. M. E. Connor, Health Officer at Colon, and Mrs. Connor; Dr. Clyde Brady of Gatun; Dr. J. S. Forsythe of Ancon Hospital; Capts. S. A. W. Patterson and J. H. A. Day, Lieuts. F. H. Drees and N. A. Eastman, Assistant Surgeon A. B. Hayward, and one hundred and fifty enlisted men of the United States Marine Corps.

M. B. Connelly, roadmaster in charge of construction, Panama railroad, returned to the Isthmus on the *Advance* August 4, from a vacation of three months in the States.

Obituary.

William J. Mills, of Gorgona, was drowned in the Chagres river near that place on Monday, August 3. He was born in England in 1862 and became an American citizen in 1885. He had been on the Isthmus about five months and was married. His widow lives at Bradford, Pa.

Mrs. Pearl May Grant, wife of Wm. S. Grant, died at their residence, House No. 92 at Gatun, on August 7, 1908. Mrs. Grant was born in Campbell County, Ky., in 1881 and had lived on the Isthmus one year.

A type 24 house is being built at Gatun for Maj. Chester Harding, assistant engineer of the Atlantic Division, who will occupy it on his return from the States in October. Maj. James P. Jervey, assistant engineer on lock construction at Gatun, has taken the house formerly occupied by Maj. Harding.

COMMISSION HOSPITAL SERVICE.

III.

Colon Hospital.

Colon Hospital is located on the north side of Manzanillo island, adjoining the city of Colon and facing the Caribbean sea. The buildings, forty in number, are on one level in a compact group. They are of frame construction and thoroughly screened. Five of them stand on brick and concrete pillars on a coral reef, which is covered by the sea except at low tide, while the remaining 35 are located on a long and narrow strip of land about 13 acres in extent, with a sea frontage of 1,700 feet. Only one of the wards of the hospital stands more than 80 feet from the water's edge, while most of the buildings are placed broadside to the sea, thus commanding an unobstructed view and getting the full benefit of the breeze, which blows almost constantly. The buildings are joined to each other by covered bridges and verandas, making it possible to transfer patients and supplies easily and quickly from one part of the hospital to another, under cover and protected from the weather. Within the hospital enclosure are also three buildings of the property division of the Sanitary Department, consisting of the medical storehouse, packing house, and quarters for the storekeeper.

There are 15 separate wards, the smallest accommodating 12 patients, and the largest 140, with a total of 550 beds for patients. In an emergency the capacity of the hospital can be increased considerably beyond this figure by the use of cots. There are in addition quarters for 11 married employes, 24 unmarried men, 50 woman nurses, and about 160 negro attendants and laborers. A dispensary, a laboratory, a mortuary, a storeroom, stable, shops and other accessory buildings complete the establishment.

When the Americans took charge of the Canal work on May 4, 1904, there were two hospitals at Colon, the Panama Railroad Company's hospital for its employes and the French hospital which adjoined it. The hospital for railroad employes had been established since the early days of the railroad, and always had a staff of physicians and nurses in charge. The French hospital was established about 1883 and the Old French Company operated it under the contract system with a staff of physicians, and Sisters of Charity for nurses, and it had accommodations for from 30 to 40 patients. During the régime of the New French Company it had no resident physician, but was managed by the Sisters of Charity and was used principally as an almshouse.

The main building, containing the office and three small wards, was acquired from the French, along with three or four smaller buildings, which are still in use. When taken over by the Commission, September 14, 1904, all these buildings required extensive repairing. In January, 1905, the Commission acquired and added the small hospital operated by the Panama railroad for the benefit of its employes, consisting of a two-story building capable of accommodating about 30 patients. The construction of additional buildings, including an operating room, and other features necessary to the equipment of a modern hospital was begun. In May, 1905, more buildings for wards and other purposes were added, and in November, 1906, the hospital had reached its present dimensions.

The American management of the hospital was inaugurated under Dr. L. W. Spratling, U. S. N., who was appointed its first superintendent, September 14, 1904. During the latter part of 1904 and the beginning of 1905, a resident staff of American physicians and trained nurses was established. Dr. Spratling was succeeded by Dr. H. C. Curl, U. S. N., who was superintendent from June 5, 1905, to February 7, 1907. Dr. J. F. Leys, U. S. N., has been superintendent since the latter date.

The administration of the hospital is directed from the office of the superintendent, where the records are kept. There are five employes in the clerical force. The care of property is under a quartermaster, and the commissary department is in charge of a storekeeper.

The medical and surgical organization is similar to that at Ancon Hospital, and the equipment is practically the same. The regular staff includes 16 physicians, and from 40 to 50 woman nurses, all of whom are graduates of training schools, and were appointed in the United States. The physicians employed at the various stations along the line of the Canal are affiliated with the staff of Colon Hospital, forming a part of the hospital division, under the Director of Hospitals, Surgeon H. R. Carter, United States Public Health Service. Newly appointed physicians in this division are usually sent to Colon Hospital for a tour of duty, to enable them to acquire experience in tropical diseases early in their service, and physicians are detailed from the staff of this hospital to take the places of those on the line who may be sick or on leave.

Colon Hospital takes the surgical and medical cases in the territory north of Tabernilla, including the Isthmian Canal Commission communities at Gatun, Cristobal, and Porto Bello, as well as cases from the Panamanian towns of Colon and Bocas del Toro, the Republic of Panama not having any hospital of its own on the north side of the Isthmus. During the fiscal year ending June 30, 1908, the number of patients treated in the hospital was 12,166; the largest number in hospital at any one time was 473; the largest number admitted during any one month was 1,050. In addition to caring for patients admitted to the hospital, a dispensary is maintained for the treatment of outpatients. An average of about forty outpatients per day, from Colon, Cristobal, and outlying communities, are given medical and surgical treatment.

The permanent boards, for the north side of the Isthmus, meet at Colon Hospital. The medical examining board, consisting of the superintendent, the chief of surgical clinic, and the chief of medical clinic, deals with the cases of employes and other persons whom it may be advisable to repatriate on account of physical disability The board on infectious diseases consists of the Superintendent of Colon Hospital, the Health Officer of Colon and Cristobal, and the Quarantine Officer of the port, and its duty is to examine, diagnose, and report to the Chief Sanitary Officer, cases of infectious disease arriving in the port or occurring in the community.

HEALTH REPORT FOR JULY.

Usual Conditions Maintained.

To the Chairman, Isthmian Canal Commission, Culebra, C. Z.:

Sir—I herewith forward report of the Department of Sanitation for the month of July, 1908.

You will note that the death rates and sick rates are, in general, somewhat increased over those of June. This was to have been expected, as it has occurred in all former years. For the last three years we have reached our maximum in this respect, about the middle of August.

As compared with the same month last year, there has been a large improvement. The death rate among the whites, July, 1907, was 15.72; this July, 12.69. Among the blacks, last July, 42.58; this July 15.43, a decrease of more than half. Among the total number of employes, last July, 35.09; this July, 14.68. With 38,298 employes last July, we had 112 deaths; with 44,938 employes this July, we had 55 deaths. Last month we had on the pay rolls 45,662 employes; this month, 44,938, a decrease of 724.

Comparing July of 1907 and 1908, there has also been a satisfactory decrease in the death rate of the total population. In July, 1907, we had a rate in Panama of 50.91; in 1908, 36.31. In Colon, 43.46 as against 27.01. In the Canal Zone, 34.99, as against 25.66. In the total population, 41.46, as against 29.11. Last July, with a total population of 103,333, we had 357 deaths; this July, with a total population of 121,607, we had 295 deaths.

There is not so great a change in the sick rate of the two years. Last July, our daily sick rate among the employes was 28.66 per thousand; this July, 27.01 per thousand, but the gravity of the cases has evidently greatly decreased. Last July, with a sick rate of 28.66, we had a death rate of 35.09 per thousand; this July, with a sick rate of 27.01, we had a death rate of 14.68 per thousand. That is, with about the same sick rate, we had, this July, less than half the number of deaths per thousand.

No cases of plague, yellow fever or smallpox originated on the Zone during the month, nor were any cases of these diseases admitted to the quarantine stations. I think, therefore, that the health conditions are satisfactory.

Very respectfully yours,

(Sgd.) Wm. C. Gorgas,

Chief Sanitary Officer.

Pacific Masonic Club.

By order of President H. A. Gudger, a special meeting of the Pacific Masonic Club will be held on Friday, August 14, at 8 p.m., at Hotel Tivoli, to make final arrangements for laying the corner stone of Ancon chapel, on Sunday, August 16. All members are hereby summoned to attend.

William E. Roessner,

Assistant Secretary and Treasurer.

Ancon, August 7, 1908.

The Division of Building Construction during the month of July, 1908, finished the construction of 33 buildings, made repairs to 172 buildings, alterations on 11, and demolished 12 old buildings. The average number of employes at work was 1,403, of which number 330 were "gold" employes and 1,073 "silver" employes.

LANDS FOR CANAL PURPOSES.

Decision of the Joint Commission and Finding of the Umpire.

The text of the decision of the Joint Commission, appointed to determine the damages due land owners and claimants whose property will be overflowed or otherwise damaged by the operations of the Isthmian Canal Commission, is given below. It was provided by the Treaty of November 18, 1903, that the question of damages not determinable by private agreement be submitted to a joint commission of four, each Government to be represented by two members; and that such cases as the Joint Commission failed to determine should be submitted to an umpire agreeable to both Governments. As the Joint Commission of 1908 agreed in its findings no umpire was necessary. A Joint Commission which met in 1907 disagreed on the claims for damages submitted to them and Hon. Edwin Denby was finally selected as umpire for those claims. His findings are also printed herewith.

The Joint Commission of 1908 was composed of Hon. Edwin Denby of Detroit, member of Congress from Michigan, and Hon. Everett C. Bumpus of Boston, Mass., representing the United States and Dr. Gil Ponce J. and Senor Julio J. Fabrega of Panama, representing the Republic of Panama. The case of the United States was presented by Richard Reid Rogers, general counsel of the Isthmian Canal Commission, who was assisted by Dr. Inocencio Galindo, George H. Bartholomew, and Charles R. Williams. The claimants were represented by Messrs. Oscar Teran and T. C. Hinckley, of Panama.

Most of the claims for damages which will be caused by the flooding of lands by the waters of Gatun lake were settled by voluntary agreement between the Isthmian Canal Commission and the claimants and, therefore, did not come before the Joint Commission. These settlements, and the rate per hectare paid under them, are made part of the brief of the United States submitted to the Joint Commission. The prices agreed upon in these contracts ranged from $25.00 gold, per hectare (about 2½ acres), for improved lands, to ten cents gold, per hectare, for swamp lands.

The award of the Joint Commission and the decision of the Umpire follow:

PANAMA, August 8, 1908.

To the Honorable Elihu Root, Secretary of State of the United States, and Horacio F. Alfaro, Secretary of State of the Republic of Panama.

The Joint Commissioners, appointed under the provisions of Articles VI and XV of the Treaty between the United States of America and the Republic of Panama relating to damages caused by the construction and maintenance of the ship canal across the Isthmus of Panama to connect the Atlantic and Pacific Oceans and dated November 18, 1903, have the honor to report that, under the authority vested in them by their respective governments, they met in the City of Panama on June 8, 1908, and proceeded to qualify for such office by taking the proper oath before the Clerk of the Supreme Court of the Canal Zone.

They thereupon organized the Commission provided for by the Treaty, elected Honorable Edwin Denby chairman of the same, established rules of procedure, and caused the parties in interest in the cases brought on for hearing before the Commission to be lawfully notified so that they might appear before the same at a certain time and place for the hearing and determination of such causes.

The United States appeared by its atttorney, who participated in the proceedings. Some of the claimants appeared by counsel, others appeared per se. The United States attorney also brought to the attention of the Commission the fact that certain lands would be appropriated in the building of such Canal, the title to which was unknown.

In the latter causes, in order that every opportunity might be given to any party to appear and claim title and damages concerning the same, the Commission caused notice to be published in the *Star & Herald*, a paper published in the City of Panama, giving general notice of the time and place when such causes would be heard. All the causes heard and determined are set forth in the list embodied in this report.

Many questions were raised by the attorney for the United States in some of the cases in reference to the title or interest, if any, which the claimants therein had in the estates appropriated by the United States in the premises. The Commission carefully considered and determined all such questions, and, in such cases where damages were subsequently assessed, have taken this question of title into consideration in passing upon the extent of damages to be allowed. It was difficult to determine, and not always possible to find, in the complications which arise in applying the law relating to titles in this country, whether a claimant might or might not have an absolute title in the estate affected. In every case, however, where such doubt has arisen, the claimant was at least a "landholder;" that is, holding the possession of the estate affected at the time of the Treaty, and his occupancy was not at that time in danger of being affected by reason of any alleged defect in his title, and, as far as it appeared, his possession of the premises would have been permanent for all practical purposes. It seems to the Commission, therefore, that such claimants have the right to be treated as "landholder" under the provision of Clause VI of the Treaty, and damages assessed accordingly.

Having disposed of the question of title, the Commission heard all the evidence presented, bearing upon the fair value of the property appropriated by the United States (to which section 6 of the Treaty applies) and any damage arising from the same to the property of the claimants. They especially considered as elements of such valuation the extent and character of the property so affected, its location, for what it was adapted or could be adapted within a reasonable time; these, as well as other pertinent considerations, were taken into account, and formed the basis upon which the damages have been assessed. The Commission did not consider the effect the building of the Canal would have upon the value of such estates.

Following is a list of cases so determined and the amount of damages:

Estate.	Hectares taken by the U. S.	Claimants.	Damages awarded.
Cardenas	126	Hurtado family represented by Narciso Garay	$10,000
Penas Blancas en Medio	218.5	Louisa Cerezo and heirs of Aniceto Cerezo.	4,000
Juan Grande ...	Undivided ¼ of 42	Luz Espinosa.	250
El and La Pihiva.	406	Josefina Jiron and Angilica Jiron.	20,000
Tabernilla.....	183.5	Jean Gris and Ramon M. Valdez.	4,500
Bailomonos	102	Heirs of Francisco Ardilla, heirs of Remigio, Dutari Correa, Alfaro Hermanos, heirs of Carlos Icaza Arosemena: damages for whole estate	2,000
Calle Bruja....	248	Unknown	2,480
Palo Horqueta and Matias.	576	Unknown	5,760
Barro Colorado and Palenquilla.	162.5	Unknown	1,625
Palenquilla and Frijol Grande.	190	Unknown.........	1,900
Barro Colorado and Frijol Grande.	72.5	Unknown	725
Santa Cruz....	74	Unknown	740
Hacienda Andrade.	....	Antonio Andrade.	90,000

As part of the damages caused the various claimants represented by Messrs. Teran and Hinckley, we allow the sum of $481 gold as costs expended in behalf of the said claimants, same to be paid by the Government of the United States to Dr. Oscar Teran.

Interest also is to be paid upon the said awards from the date of this report at the rate of 6 per cent per annum until the same shall be paid or tendered by the Government of the United States. In so far as the cases involving unknown claimants are concerned we direct that the Government of the United States pay into the Supreme Court of the Canal Zone, or any other court having competent jurisdiction, upon the request of any party claiming to have an interest in any of such awards, the amount of the sum awarded therein.

The United States requested that the damages should be awarded by the hectare, claiming that as to some of the estates affected an accurate survey had not been obtained of the amount to be appropriated and only an estimation of the same could be given. The Commission, however, is of the opinion that it should follow the ordinary rule of allowing damages in full and that any other course might create future confusion, and perhaps controversies, in reference to the amount and character of the property appropriated. It is also of the opinion that the variation between the amount of area estimated and that which might be determined upon a survey is not of substantial moment, and, if in any case such happens to be the fact, it could have been cured by a proper prior survey of the same.

The claim set up by Ernesto Arosemena for damages arising from the expropriation of the estate of Mamei y Culo Seco was withdrawn.

In the cases of Penas Blancas en Medio and Bailomonos, damages were claimed on account of the fact that the Panama Railroad Company had issued passes over its railroad for the benefit of the landowners or landholders in consideration of being given a right-of-way over the estates affected. We have not considered such claims in estimating the damages, but reserved to the parties any rights they may have to enforce such claims in the premises.

In the matter of the claim of Antonio Andrade, wherein the Government objected to certain elements of damages to be considered, we have overruled the objection and have assessed the same upon the principle that he is to be allowed the amount which, as landholder, his property will be affected by the action of the United States in taking same for Canal purposes.

In submitting this report, it may not be deemed amiss to congratulate all parties concerned that these complicated and difficult questions have been conclusively determined by the unanimous action of the Commission and the rights of all in interest, as we believe, fully and amply protected. It is also proper to add that we have been greatly aided in coming to determination by the zeal and ability displayed by counsel of the United States Government, as well as by counsel who represented some of the claimants.

EDWIN DENBY,
Chairman.
EVERETT C. BUMPUS,
Commissioners on behalf of the Government of the United States.
GIL PONCE J.
JULIO J. FABREGA,
Commissioners on behalf of the Government of the Republic of Panama.

EXPROPRIATION PROCEEDINGS.

Cases Determined.

Juan Diaz Cabellero, containing 83.618 hectares.
Gavilan and Gavilancito, containing 17 hectares.
San Lazaro, containing 1 hectare.

Findings of Edwin Denby, Umpire.

The question of title does not arise in any of these cases, as the titles of claimants are undisputed. Claimants challenge the right of the Government of the United States to abandon a portion of a tract once noticed for expropriation and concerning which a trial has been had before Commissioners, but no agreement reached.

I find that the United States has the right to abandon before final judgment, but must give fair compensation to owners for occupation, actual or presumed, of the land and pay any incidental damages accruing therefrom.

I find the United States is liable in damages as follows:

To Mr. Francis Schuber for the occupation and use for four years of the property known as Corozal, situated on the estate of Juan Diaz Cabellero, for the damages done by the occupation and subsequent abandonment of 75 hectares, more or less, of the said estate, and for the value of 83.816 hectares of land now expropriated forty-five thousand dollars ($45,000) gold, with interest at the rate of 6 per cent per annum from the date of this report.

To Maria Concepcion, Sosa, for the expropriation of 17 hectares of the estate known as Gavilan and Gavilancito, fifteen thousand dollars ($15,000) gold, with interest at the rate of 6 per cent per annum from the date of this report.

To Mr. Gabriel Duque, for the occupation for one year of 11 hectares of the estate known as San Lazaro and subsequent abandonment of the same, and for the expropriation of one hectare of the said estate, one thousand dollars ($1,000) gold, with interest at the rate of 6 per cent per annum from the date of this report.

EDWIN DENBY, *Umpire.*

OFFICIAL CIRCULARS.

Letters of Recommendation.

CIRCULAR NO 191.

The following resolution, adopted by the Isthmian Canal Commission at its 112th meeting, is again published for the guidance of all concerned:

"*Resolved*, That, effective July 1, 1905, no letters of recommendation shall be given employes resigning or discharged from the service of the Isthmian Canal Commission, excepting by the heads of departments, and such letters shall be restricted to a transcript of the official record of such employe."

GEO. W. GOETHALS,
Chairman.

Culebra, August 3, 1908.

Destruction and Expropriation of Improvements.

CIRCULAR NO. 193:

In cases where it becomes necessary, in order to best promote the construction of the Canal, to enter upon, interfere with, damage or destroy property owned by private individuals or companies, such as buildings, growing crops, fences, or other improvements, written authority must first be secured from the head of the Department or Division in charge of the work and advance notice given to the owners, except in cases of extraordinary emergency requiring immediate action.

In order that a uniform policy may be carried out in adjusting these cases, the head of the Department or Division will refer all settlements to the Department of Law, giving accurate and detailed information regarding the location of the property and a careful appraisal of the improvments destroyed or expropriated, with dates, names and places.

The Department of Law will thereupon effect a settlement with the owner within the limits of the appraisement and will communicate the terms agreed upon to the head of the Department or Division. The latter will then prepare a voucher (Form D. O. 309 Rev.) covering the agreed payment to the owner, this voucher, after being properly signed, to be approved by the attorney on the Isthmus and the Chairman of the Commission.

This procedure applies only to improvements such as mentioned and not to land titles.

GEO. W. GOETHALS,
Chairman.

Culebra, C. Z, August 6, 1908.

Acting Chief Timekeeper.

CIRCULAR NO. 79.

Effective August 5, 1908: George C. Taulhee is designated as Acting Chief Timekeeper of the Department of Civil Administration, during the absence on leave of Fred A. Feld.

JO. C. S. BLACKBURN,
Head of Department of Civil Administration.

Ancon, August 4, 1908.

Schedule of Pay Car.

OFFICE OF DISBURSING OFFICER,
Empire, C. Z., August 6, 1908.

CIRCULAR LETTER.

To All Concerned: Notice is hereby given that, effective August 12, instant, the running of the pay car between La Boca dump and Culebra on the 12th of each month has been changed, and the following schedule will be observed:

	From	*To*
At Cardenas	6.30 a. m.	7.00 a. m.
Big Tree Dump	7.00 a. m.	8.00 a. m.
Corozal Station	8.00 a. m.	8.30 a. m.
Miraflores, east side	8.30 a. m.	9.00 a. m.
Miraflores, west side	9.00 a. m.	10.00 a. m.
Pedro Miguel Yards	10.00 a. m.	10.30 a. m.
Through Cut to Paraiso	10.30 a. m.	11.00 a. m.
Paraiso	11.00 a. m.	1.00 p. m.
Through Cut to cableway incline	1.00 p. m.	3.00 p. m.
Lirio Planing Mill	3.00 p. m.	3.30 p. m.
Rio Grande	3.30 p. m.	4.00 p. m.
Culebra	4.00 p. m.	5.00 p. m.

This change will not effect the schedules of the 13th and 14th, which will remain as formerly.

EDWARD J. WILLIAMS,
Disbursing Officer.

Premiums on Bonds.

OFFICE OF THE DISBURSING OFFICER,
Empire, C. Z., August 5, 1908.

CIRCULAR NO. 46.

To All Concerned: At the 145th meeting of the Commission, held July 18, a resolution was passed to the effect that hereafter premiums on bonds of employes of the Isthmian Canal Commission, bonded to the Disbursing Officer on the Isthmus, shall be paid by the Commission.

Effective at once, the method obtaining in the past, of deducting from employe's salary the amount of his bond premium, will be discontinued, as will the practice of requesting an addition to such salary to cover such deduction

EDWARD J. WILLIAMS
Disbursing Officer.

Approved:
GEO. W. GOETHALS
Chairman and Chief Engineer.

Chief Claim Clerk.

PANAMA RAILROAD COMPANY AND
PANAMA RAILROAD STEAMSHIP LINE,
Colon, R. P., August 3, 1908.

TO ALL CONCERNED.

During the absence of Mr. A. D. Lectra on his vacation, Mr. R. T. B. Peirce will be Chief Claim Clerk in this office.

G. E. GEER,
Acting General Manager.

Proposals for Cross and Switch Ties.

Sealed proposals will be received at the office of W. G. Tubby, Purchasing Agent on the Isthmus, Cristobal, C. Z., up to 3.30 p. m., Wednesday, September 9, 1908, at which time they will be opened in public, for the sale to the Isthmian Canal Commission of forty thousand (40,000) first-class cross ties, four thousand (4,000) second-class cross ties, ten (10) sets of No. 7 switch ties, and ten (10) sets of No. 10 switch ties, according to the following specifications:

1. The timber used shall be black or yellow Guaiacum, commonly called Guayacan or Lignum Vitæ.
2. All ties shall be well and smoothly hewed out of straight-growing timber of specified dimensions and out of wind, sawed or square-cut ends, with straight and parallel faces. All ties shall have bark entirely removed when cut. Ties shall be free from splits, shakes, loose or decayed knots, or any other imperfections which may impair their strength or durability.
3. Except in pole ties with rounded sides, or in half-round ties, the width of face and thickness shall conform to sizes given in the table of dimensions below, but a variation of size will be permitted of one inch over in thickness, one inch over in width, and three inches over in length.
4. In pole ties with rounded sides, and in half-round ties, the width of face may be less than that given in the table of dimensions, but the least area of cross section shall not be less than the area corresponding to the tabular dimension, and in no case shall the width of face be less than six inches for first-class and five and one-half inches for second-class ties.

TABLE OF DIMENSIONS.

	Thickness by width of face	Length	Maximum variat'n from straight edge	
			Top and bottom	Sides
1st class	6" x8"	8'0"	½"	2"
2d class	5½"x7"	7'9"	1"	3"

SWITCH TIES.

No. 7 Turnout.				*No. 10 Turnout.*			
Number	Dimensions	Length	Feet B. M.	Number	Dimensions	Length	Feet B. M.
4	6½x8½	9'0"	165.76	4	6½x8½	9'0"	165.76
7	do	9'6"	306.18	5	do	9'6"	218.70
4	do	10'0"	184.16	7	do	10'0"	322.28
5	do	10'6"	241.70	5	do	10'6"	241.70
3	do	11'0"	151.92	5	do	11'0"	253.20
3	do	11'6"	158.82	4	do	11'6"	211.76
4	do	12'0"	221.00	4	do	12'0"	221.00
2	do	12'6"	115.10	3	do	12'6"	172.62
4	do	13'0"	239.40	3	do	13'0"	179.52
3	7x9	13'6"	212.63	3	7x9	13'6"	212.63
1	do	14'0"	73.50	3	do	14'0"	220.50
2	do	14'6"	152.25	3	do	14'6"	228.38
2	do	15'0"	157.50	5	do	15'0"	393.75
3	5½x8½	15'6"	214.08	2	6½x8½	15'6"	142.72
47			2,594.00	56			3,184.52

Delivery will be made on the docks at Cristobal or La Boca, C. Z., or within fifty feet of any track of of the Panama railroad, not more than four feet above or four feet below grade, and ties will be inspected as they are unloaded on the dock or when loaded on cars. Delivery shall not begin later than October 1, 1908, and shall be completed by January 1, 1909. Bidders shall furnish a sample not less than five inches square and twelve inches long of the kind of wood they propose to furnish, and submit certified check, money order or cash in the amount of one hundred (100) dollars, U. S. currency, as evidence of responsibility and ability to carry out the provisions of the contract, and nine hundred (900) dollars, U. S. currency, additional at the time of execution of the contract. Bids shall be enclosed in sealed envelopes plainly marked "Proposals for Furnishing Guaiacum Ties." The Commission reserves the right to reject any and all bids.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

The Nordica Concert Quartet will give a concert at the Commission club house at Culebra on Wednesday night, August 12; at Empire on Thursday night, and at Gorgona on Friday night. The members sail for New York Saturday, August 15. The quartet is composed of Miss Harriet Cleveland Westcott, of Boston; Miss M. Elizabeth Tiffany, Mr. Walter I. Holt and Mr. W. A. Morsell, of Washington. The program is as follows:

Mandolin, Mandola, and Piano Trio—*Red Mill Selection* .... Herbert
Contralto Solo—*Parted* .... Tosti
MISS WESTCOTT.
(Mandolin obligato.)
Mandolin Solo—*Valse Fantasie* .... Seigel
MISS TIFFANY.
Congo Songs ....
MR. MORSELL.
Piano Solo .... Selected
MISS WESTCOTT.
Mandolin, Mandola, and Piano Trio—*Autumn*. .... Moret
Contralto Solo—*By the Sun Dial* .... Elliott
Congo Songs ....
MR. MORSELL.
(Accompanied by trio.)

CRISTOBAL.

The local pool tournament closed Thursday. After a close contest, I. H. Fleischman won first place and C. O. Herring second. Two handsome cues were presented as prizes.

The local chess tournament closed Saturday, resulting in a victory for Don H. Beaman, with 8½ games won to 1½ lost. The other players were E. J. Vogel, L. E. DuBois, M. E. Rupp, P. C. Rose, C. R. Harrington, W. J. Shutes, L. T. Maenner, Theo. Holz, F. H. Speir and Geo. Strong.

The bowling team took three straight games from Empire Wednesday night on the Empire alleys The Cristobal team is in first place, Empire second, Culebra third, and Gorgona fourth.

Saturday night the Nordica Concert Quartet gave an interesting program.

EMPIRE.

There is great interest just at present in the gymnasium work. A large number of new men are doing the regular class work, followed by apparatus exercise, and games such as basketball and indoor baseball. The class will meet every Tuesday and Friday evenings at 7.30 o'clock.

The Cristobal indoor baseball team will play here Saturday evening. A good game is assured.

Special efforts are being made to get the mechanics into the Association, as they are the men that would appreciate the privileges more fully than any other class. There has been a large increase in membership during the past three weeks.

Four hundred and ten games out of the possible 900 games that will be played in the duck-pin tournament have been played, and the scores of the eight bowlers are as follows:

Name—	*Games won.*	*Games lost.*	*Pinfall.*	*High score.*
Durand	2	....	176	91
Shore	15	3	1554	95
Thatcher	5	1	489	97
Brown	8	2	848	99
Shaughnessy	10	4	1151	96
Hill	2	1	254	96
Bardleson	13	7	1683	105
McGimsey	8	5	1095	101

LEGAL NOTICE.

United States of America Canal Zone. } In the First Judicial Circuit.

George Blake, Jamaican, died intestate July 15, 1907, leaving an estate, consisting of three houses in Pedro Miguel. The claimants for the estate have not proved that they are the legitimate heirs of the decedent, and the Collector of Revenues has filed a petition for escheat under Sections 779-781 of the Code of Civil Procedure.

Notice is hereby given to all concerned to appear at the court house in Ancon on October 5, 1908, at 9 o'clock a. m., to establish their claims to the said estate, or to show cause why the same should not escheat to the Canal Zone.

WALTER EMERY,
Circuit Court Clerk.

The steamship *Frey* arrived at Cristobal on July 28 with a cargo of 1,310,800 pounds of dynamite for the Isthmian Canal Commission.

The steamships *Ellis* and *Haakon VII* of the United Fruit Company's line arrived at Colon on July 30 and August 1, respectively, with a combined cargo of 1,698,272 pounds of pig iron for the Commission.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week beginning August 12

FRESH MEATS, POULTRY AND COLD MEATS.		Price
Beef—Sirloin roast	per lb	30
Rump roast	per lb	30
Porterhouse	per lb	30
Rib-roast, short cut (not under 3½ pounds)	per lb	24
Rib-roast, second cut (not under 3 lbs)		20
Chuck-roast	per lb	15
Soup	per lb	9
Stew	per lb	12
Corned	per lb	12, 14, 16
Suet	per lb	4
Steaks—Sirloin	per lb	30
Porterhouse	per lb	30
Rump	per lb	30
Round	per lb	24
Veal—Cutlets	per lb	24
Short-cut chops	per lb	24
Loin	per lb	23
Entire forequarters (15 to 20 lbs)	per lb	11
For stewing	per lb	11
Mutton—Entire forequarters, (not under 10 lbs)	per lb	9
Short-cut chops	per lb	20
Leg (8 to 10 lbs)	per lb	18
Lamb—For stewing	per lb	10
Entire forequarters	per lb	10
Chops	per lb	30
Leg (6 to 8 lbs)	per lb	28
Pork—Cuts	per lb	20
Livers—Beef	per lb	11
Calf	each	60
Sausage—Pork	per lb	16
Sweet bread—Veal	each	1.20
Beef	per lb	25
Pigs' tongues (salted)	per lb	15
Ox tongues	each	90
Chickens, dressed (milk-fed)	each	1.40
Chickens, large	each	1.90
Fowls, medium and large	each, $1.00 and	1.25
Ducks, fatted (fancy)	each	1.10
Suckling pigs	each	4.90
Turkeys	per lb	30
Squabs	each	45
Eggs (fresh)	per dozen	32
Capons	each	2.40
Bacon—Strips	per lb	23
English, breakfast, sliced	per lb	§26
Ham—Sugar-cured, sliced	per lb	§25
One-half, for boiling	per lb	§20
Westphalia	per lb	45
Ferris	per lb	19
Beef, salt, family	per lb	14
Salt Pork	per lb	13
DAIRY PRODUCTS		
Butter, prints, prime quality	per lb	35
Cheese—Cream, Phila	each	22
Neufchatel	each	6
Young America	per lb	22
Swiss	per lb	33
Gouda	per lb	34
Edam	each	1.05
Camembert	per lb	28
McLaren's	per jar	15
Pinxter's	per tin	22
Milk, Briarcliff	quart	25
Buttermilk	bottle	15

FRUITS AND VEGETABLES		
Pineapples	each	15
Limes	hundred	70
Lemons	dozen	18
Oranges	dozen	18
White potatoes	per lb	3½
Cabbage	per lb	4
Onions	per lb	4½
Corn	dozen	25
Sweet potatoes	per lb	2½
Yams	per lb	3½
Turnips	per lb	6
Beets	per lb	6
Carrots	per lb	6
Squash (summer)	per lb	7

§ Sold only from cold-storage and not from Commissaries.

NEW ARTICLES.		Price.
Chairs, high, cane seat, No. 988½	each	$7.50
Linoleum	square foot	55
Fitted brush cases, No. 10	each	1.40
Fitted brush cases, No. 12s	each	1.60
Dressing, shoe, quick, white, large	package	15
Drawers and undershirts	garment	60
Link cuff buttons	pair	2.80
Shirts, Manhattan	each, $1.60 and	2.35
Pins, collars and cuff	each	30
Combination corset covers	each	2.50
Dresses, night	each	1.35
Dresden draperies	yard	10
Paris tissue	yard	11
Chiffon	yard	44
Pois de soie and soisette	yard	20
Suisse plumettis	yard	19
Lucerne tissue	yard	16
Swiss applique	yard	16
Purses, leather, No. 265-5	each	50
Purses leather, No. 265-4	each	40
Cases, combination cigar and cigarette	each	4.30
Shoes—Men's high-cut, tan, blu	pair	6.00
Men's russet, calf, oxf., blu	pair	2.60
Men's leather, extra high-cut	pair	7.00
Men's leather, high-cut	pair	3.90
Men's leather, high-cut	pair	3.70
Men,s leather, low-cut	pair	5.35

Misdirected Letters.

Division of Letters,
Ancon, Station A, August 12, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions have been received in the office of the Director of Posts, and may be secured on request of addressee:

Alexander, A. H.
Barbon, Herbert
Boyd, D R
Byrnes, J. N.
Campbell, A. I.
Campbell, Mrs. Wm
Cooke, C. L. (2)
Deyo, Daniel
Earle, H. E.
Falkner, Wm. H.
Fowler, H. M.
Glaze, Humphrey
Graham, Alex
Groute, Olie
Hollbrook, Mrs. J. W.
Houston, R. S. G.
Kaben, F. C.
Linton, B. F.
McAllister, Frank T
McCarney, Geo.
McPeak, Mrs.
McPhee, Doug.
Moses, Jack
Rogers, Mrs. Stella
Shepard, F. A.
Stanley, Mrs. L. P.
Taylor, J. O.
Westcott, Fred.
Whiteman, Frank

The steamship *Thelma* arrived at Cristobal on August 8 with a cargo of piles for the Commission and Panama railroad.

STATEMENT OF CLASSIFIED EXPENDITURES TO JUNE 30, 1908.

The following table shows expenditures for Canal work, classified monthly, since July 1, 1907. The figures give only expenditures which have been located. In addition, there have been some disbursements, such as purchasing material, etc., which it will not be possible to locate to a specified account until their use has been finally determined:

Period.	Civil Administration.	Sanitation.	Construction and Engineering.	Municipal Improvements.	Plant Account.	Total.
Prior to July 1, 1907	$1,442,386.62	$4,615,698.76	$13,423,434.81	$4,275,794.46	$19,415,093.89	$43,172,408.54
July	51,183.84	149,270.94	962,477.19	146,131.93	580,562.68	1,889,626.58
August	67,548.53	214,018.03	1,196,803.45	192,227.75	767,153.24	2,437,751.00
September	63,239.62	253,108.77	1,194,304.85	107,840.85	1,068,300.58	2,686,794.67
October	53,227.97	189,196.38	1,372,311.81	123,939.88	1,131,450.91	2,870,126.95
November	54,529.02	166,381.82	1,217,120.31	115,625.44	1,105,590.16	2,659,246.75
December	64,903.04	213,725.16	1,369,822.79	125,420.96	591,298.02	2,365,169.97
1908—						
January	66,802.92	221,866.30	1,468,021.44	156,956.22	1,584,821.98	3,498,468.86
February	72,514.14	174,076.77	1,523,011.72	100,700.40	889,405.82	2,759,708.85
March	63,653.60	165,311.77	1,460,229.91	110,232.15	1,307,321.82	3,106,749.25
April	74,046.55	178,041.65	1,580,416.19	138,115.21	797,137.63	2,767,757.23
May	73,340.26	184,381.35	1,580,369.11	69,824.83	955,405.12	2,863,320.67
June	379.34	200,833.07	1,755,771.69	107,940.79	905,767.19	2,969,933.40
Total	$2,146,996.77	$6,925,910.77	$30,104,095.27	$5,770,750.87	$31,099,309.04	$76,047,062.72

MOVEMENT OF OCEAN VESSELS.

The following is a list of the sailings of the Panama Railroad Steamship Company, of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON.			
Finance	P. R. R.	Friday	Aug. 7
Trent	R.-M.	Saturday	Aug. 8
Esperanza	P. R. R.	Wednesday	Aug. 12
Pr. Aug. Wilhelm	H.-A.	Saturday	Aug. 15
Colon	P. R. R.	Monday	Aug. 17
Advance	P. R. R.	Saturday	Aug. 22
Tagus	R.-M.	Saturday	Aug. 22
Allianca	P. R. R.	Thursday	Aug. 27
Prinz Joachim	H.-A.	Saturday	Aug. 29
Finance	P. R. R.	Tuesday	Sept. 1
Esperanza	P. R. R.	Saturday	Sept. 5
Magdalena	R.-M.	Saturday	Sept. 5
Colon	P. R. R.	Thursday	Sept. 10
Pr. Aug. Wilhelm	H.-A.	Saturday	Sept. 12
Advance	P. R. R.	Tuesday	Sept. 15
Orinoco	R.-M.	Saturday	Sept. 19
Allianca	P. R. R.	Monday	Sept. 21
Finance	P. R. R.	Saturday	Sept. 26
Prinz Joachim	H.-A.	Saturday	Sept. 26
Panama	P. R. R.	Thursday	Oct. 1
Atrato	R.-M.	Saturday	Oct. 3
Colon	P. R. R.	Tuesday	Oct. 3

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston enroute to Colon.

FROM COLON TO NEW YORK.			
Allianca	P. R. R.	Saturday	Aug. 15
Prinz Joachim	H.-A.	Tuesday	Aug. 18
Finance	P. R. R.	Thursday	Aug. 20
Panama	P. R. R.	Tuesday	Aug. 25
Magdalena	R. M.	Tuesday	Aug. 25
Advance	P. R. R.	Sunday	Aug. 30
Pr. Aug. Wilhelm	H.-A.	Tuesday	Sept. 1
Colon	P. R. R.	Friday	Sept. 4
Orinoco	R.-M.	Tuesday	Sept. 8
Allianca	P. R. R.	Wednesday	Sept. 9
Finance	P. R. R.	Monday	Sept. 14
Prinz Joachim	H.-A.	Tuesday	Sept. 15
Esperanza	P. R. R.	Friday	Sept. 18
Atrato	R.-M.	Tuesday	Sept. 22
Colon	P. R. R.	Wednesday	Sept. 23
Advance	P. R. R.	Monday	Sept. 28
Pr. Aug. Wilhelm	H.-A.	Tuesday	Sept. 29
Allianca	P. R. R.	Saturday	Oct. 3
Clyde	R.-M.	Tuesday	Oct. 6
Finance	P. R. R.	Thursday	Oct. 8
Panama	P. R. R	Tuesday	Oct. 13
Prinz Joachim	H.-A.	Tuesday	Oct. 13
Colon	P. R. R.	Monday	Oct. 19
Tagus	R.-M.	Tuesday	Oct. 20

FROM NEW ORLEANS TO COLON.			
Harry T. Inge	U.F.C.	Saturday	Aug. 8
Ellis	U.F.C.	Saturday	Aug. 15
Cartago	U.F.C.	Saturday	Aug. 22
Harry T. Inge	U.F.C.	Saturday	Aug. 29
Ellis	U.F.C.	Saturday	Sept. 5
Cartago	U.F.C.	Saturday	Sept. 12
Harry T Inge	U.F.C.	Saturday	Sept. 19
Ellis	U.F.C.	Saturday	Sept. 26

FROM COLON TO NEW ORLEANS.			
Harry T. Inge	U.F.C.	Tuesday	Aug. 18
Ellis	U.F.C.	Tuesday	Aug. 25
Cartago	U.F.C.	Tuesday	Sept. 1
Harry T. Inge	U.F.C.	Tuesday	Sept. 8
Ellis	U.F.C.	Tuesday	Sept. 15
Cartago	U.F.C.	Tuesday	Sept. 22
Harry T Inge	U.F.C.	Tuesday	Sept. 29

FROM COLON TO BARBADOS, CALLING AT TRINIDAD.			
Trent	R.-M.	Tuesday	Aug. 18
Tagus	R.-M.	Tuesday	Sept. 1
Magdalena	R.-M.	Tuesday	Sept. 15
Orinoco	R.-M.	Tuesday	Sept. 29

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company dispatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan ports, Martinique and Guadeloupe on the 3d and 20th of each month.

CANAL RECORD

Volume I. ANCON, CANAL ZONE, WEDNESDAY, AUGUST 19, 1908. No. 51.

The Canal Record

Published weekly under the authority and supervision of the ISTHMIAN CANAL COMMISSION

"The Canal Record" is issued free of charge, one copy each, to all employes of the Commission and Panama Railroad Company whose names are on the "gold" roll. Extra copies can be obtained from the news stands of the Panama Railroad Company for five cents each

Address all Communications
THE CANAL RECORD
Ancon, Canal Zone,
Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

Chairman's Monthly Report.

The report for the month of July of the Chairman of the Isthmian Canal Commission is published in other columns of this issue of THE CANAL RECORD. It summarizes the changes in the organization of the Canal force since July 1 made for the purpose of securing economy of administration, a better co-ordination of forces, and a consequent increase of efficiency. A summary of the principal items of construction work done by the three construction divisions shows that the material excavated in July amounted to 3,145,502 cubic yards, of which 3,016,105 cubic yards were taken from the Canal prism. Rock drilling to the amount of 258,441.5 feet was done; 13.1 miles of new track were laid, and 208.74 tons of explosive were used. The average number of laborers employed daily was 10,973. The rainfall in the Atlantic Division was 13.67 inches; Central Division, 10.5 inches, and Pacific Division, 5.67 inches.

In the Atlantic Division there were removed on the Gatun Locks site and the site of the Gatun dam and spillway 231,040 cubic yards; and by dredges in Limon Bay 595,646 cubic yards from the Canal prism.

The Central Division includes the old Culebra and Chagres divisions, and the excavation in it amounted to 1,467,082 cubic yards, 995,344 of which were rock. In the same territory in July, 1907, 766,511 cubic yards were removed. In July, 1907, however, the average number of steam shovels at work during the month was 43.38, while in July, 1908, the average was 52.58. The rainfall in July, 1908, was about an inch greater than in the same month in 1907, but the output per shovel per day was over 57 per cent greater than in the corresponding month of 1907.

In the Pacific Division work was continued on the lock site at Pedro Miguel where 22,648 cubic yards of material were excavated. Ninety-one thousand, eight hundred and seventy-nine cubic yards were taken from the lock site at Miraflores, and 12,490 cubic yards from the site of the Miraflores dams. The work of clearing the site of the lower lock and approach walls at Miraflores preparatory to dredging operations is in progress.

The dredging at La Boca amounted to 696,170 cubic yards. The subaqueous rock breaker has arrived on the Isthmus.

During the month work was continued on the relocated line of the Panama Railroad and excavation in the Miraflores tunnel was completed; 2,563 linear feet of permanent track were laid in July making a total of 39,312 linear feet of permanent track.

Fewer men were employed in the United States during July than in any month during the past three years, and the movement of laborers to and from the Isthmus was much smaller than in June.

Commission Hotels and mess halls were operated at a net loss of $3,885.87, and the decrease in the patronage of the hotels and colored labor kitchens was noticeable as compared with June.

Changes in Organization.

According to official circulars printed in other columns of this issue of THE CANAL RECORD, the Division of Material and Supplies will be abolished September 1, 1908, and its duties will be performed by the Quartermaster's Department. After the same date the construction work required by the Sanitary Department will be done by the construction division in which the work is located. Most of the grass and brush cutting work, garbage and night soil collection, and the operation of the incinerators, heretofore done by the Sanitary Department, will be done by the Quartermaster's Department.

Aliens to Give Way to Americans.

HEADS OF DEPARTMENTS AND DIVISIONS:

I forward herewith a list of American employes of the Division of Building Construction and of the Division of Municipal Engineering, who have been retained temporarily to close up the work of those Divisions but will be available for transfer on or after September 1st.

To comply with the order of the Secretary of War, dated February 8, 1908, it has become necessary to provide for the retention of these American employes by the discharge of aliens now employed in similar positions. Heads of Departments and Divisions are accordingly directed to take such immediate action as may be required to replace all alien clerical employes reported to this office, in reply to the circular letter of the Acting Assistant to the Chairman, dated July 24th, with men selected from the attached list. The retention of aliens now employed in clerical positions paying $1,500.00 per annum or more will be authorized only in exceptional cases when it is shown to my satisfaction that the duties of the alien employe demand peculiar qualifications, which he alone possesses, and could not be satisfactorily discharged by any available American.

GEO. W. GOETHALS,
Chairman.

Culebra, C. Z., August 14, 1908.

Work on Gatun Dam.

Gatun dam is so big a project that the progress made in the last six months, although great, is little appreciated by one who views it from the hill above the railway at Gatun. Borings and the work in the test pit have established the fact that the dam is being built on a suitable foundation. Some trestle has been built to the west of the spillway, but the greater part of the work has been confined to the spillway itself, and to the section east of it. Excavation in the spillway is nearing completion, and will be practically finished by the end of this month. The Chagres River will not be turned into the spillway, however, until the concrete work is completed above the high level of the river, or until such time after as it is practical to close the west diversion through which the river now runs.

In the section between Gatun Hill and the spillway a high trestle has been completed and the south or upstream toe is now being raised to elevation +45. On the north side of the trestle, rock from the cut at Bas Obispo is being dumped, and on the south side the fill is being made with waste material from the excavation at Mindi and the site of the locks. On the north toe of the dam east of the spillway the trestle across the old bed of the Chagres River has been completed, and a fill has been begun with rock and earth from the Canal prism at Mindi. The trestle across the old French canal is being pushed to completion, and most of the spoil from the spillway is being deposited on the north toe of the dam west of this canal.

The quarter mile between the north and south toes of the dam will be filled with sand pumped by suction dredges from a point three-quarters of a mile down the Chagres River below the dam site, where a suitable deposit of sand has been found. Dredge No. 83 has already finished cleaning out the old bed of the Chagres and the bed of the old French canal between the north and south toes of the dam. A pumping plant has been installed, to unwater the old river bed on the site of the dam so that it will be possible to clean out thoroughly any remaining debris, and thus to prepare the bed for the hydraulic fill. The pump is on the west bank of the old river channel near the south toe of the dam, opposite the old depot at Gatun, and the dis-

NOTES OF PROGRESS.

(Continued)

charge pipe will lead across the Chagres on trestle out to the low flat south of the old depot.

The test pit on the site of the dam is now down to elevation —50, and is in impervious clay. Interlocking steel sheet piling, 12 inches wide and 40 feet long, has been driven to elevation —90, thirty-two pieces having been used. The excavation of a pit 8 feet in diameter is being continued from the —50 level.

The second experimental dam, the puddle-core-in-center type, has been completed and the second series of tests will begin this week.

Pacific Division Notes

A small storehouse for use in connection with the lock and dam work at Miraflores has been built at the foot of Cocoli Hill.

To insure the excavation at Pedro Miguel Locks against flooding from the Rio Grande that river has been diverted at Pedro Miguel into a drainage channel dug by the French. The river now crosses the prism of the Canal some distance south of the lock site. A culvert with gates has been constructed across the old channel of the river so that surface water may drain through the channel, and yet, by closing the gates, the work on the lock site may be protected from the river in flood backing up through the old channel.

A steam shovel was set at work on July 31, excavating for the core of the earth dam at Miraflores.

Central Division Notes.

The offices of the Central Division headquarters were moved into the renovated building at the summit of Empire hill on August 15. The new offices command a view of Culebra Cut from Cucaracha to Las Cascadas.

A blacksmith shop for emergency repairs in the Culebra district is being built at Rio Grande. It will be similar to the emergency repair shop at Empire both in size and character of work handled.

It has been decided to build the storage magazine for explosives for the Central Division farther back in the hills above Gamboa than was at first intended. Construction work has been started on the railroad extension running from the north end of Gamboa bridge on the relocated line of the Panama railroad to the site of the magazine. The extension will be 9,000 feet long, and about one-half of it will be laid on an old grade made by the French, apparently for a railroad from the main line to the spillway of the dam which they proposed erecting on the upper Chagres.

The excavation on the east slope of Culebra Cut has undermined the toe of the slope in front of the Commission hotel at Culebra to such an extent that two type 17 houses located there have been moved. The bank broke ten feet back on August 13, necessitating the throwing back of the railroad tracks.

A schedule for the tug service between Cristobal, Porto Bello and Nombre de Dios is printed in the column "Movement of Ocean Vessels," on the last page of this issue of THE CANAL RECORD.

LANDS FOR CANAL PURPOSES.

Total Cost to the United States Less Than $300,000.

The full amount of money which the United States Government will pay to all claimants for lands overflowed or otherwise damaged by the construction of the Canal will not reach $300,000. The damages awarded by the Joint Commission, the full text of whose findings was published in THE CANAL RECORD last week, amounted to $143,980. Those awarded by the umpire, Edwin Denby, amount to $61,000. In certain claims previously adjusted, damages amounting to about $50,000 were awarded, making a grand total of $254,980. This amount may be increased somewhat when final payments are made, but the total will not reach $300,000.

This settlement, which is satisfactory to all parties, confirms the accuracy of estimates made in 1906 both in the minority report of the Board of Consulting Engineers, favoring the Lock Canal which is now in process of construction, and by John F. Stevens, the former Chief Engineer of the Isthmian Canal Commission.

In their report, which was sent to the Secretary of War on February 6, 1906, the minority members of the Board of Consulting Engineers said:

> We have not sufficient information for making a close estimate of the value of the lands to be flooded. The accessible lands are probably worth more at the present time than when the purchases were made by the Canal Company; but, on the other hand, most of the land required is inaccessible and nearly worthless, and it is probable that much of the land outside of the Canal Zone belongs to the Republic of Panama, which has by Treaty granted to the United States the right to use it where needed for the purposes of the Canal. An approximate estimate may therefore be based on the price per acre paid by the Canal Company for the whole area it acquired, and such an estimate would be 38,400 acres at $7.70 per acre, making the total cost $295,680, or, in round numbers, $300,000. While the actual cost is likely to exceed this somewhat, no better data for an estimate exist. It would be neither good judgment of values nor to the interest of the United States to submit an extravagant figure.

In his testimony before the Senate Committee on Interoceanic Canals, at Washington, on January 23, 1906, Mr. Stevens said that he had given much thought to the question, and added:

> Taking the Zone map, and taking the United States ownership, and including the Panama railroad ownership, I figured that putting the value of the land as high as I possibly could, stretching my conscience to that extent—mind you, if I were buying there I would not pay any such prices—it would be necessary to acquire not to exceed $300,000 worth of privately owned tracts; and I find that the minority report have the same figures, although how they arrive at them I do not know.

Before the same committee, on March 9, 1906, Prof. William H. Burr, formerly a member of the Isthmian Canal Commission, and one of the majority members of the Board of Consulting Engineers who reported in favor of a sea level canal, testified that in his opinion, based upon experience in the purchase of land on the Isthmus:

> If the United States Government should complete this lock plan it would be fortunate if it got out with the payment of an average price for all the land covered, of anywhere from $300 to $500 an acre, judging from actual experience which we have had there. * * * I think the United States would be lucky if it got out of it from $300 an acre.

The prices agreed upon by the Joint Commission ranged from $25 gold, per hectare, (about 2½ acres) for improved lands, to 10 cents, gold, per hectare, for swamp lands.

When asked what the aggregate would be, Professor Burr replied:

> It would amount to a very large sum. I will tell you in a moment, including the whole 118 square miles, for the United States has value in that land just as much as any other party, and the whole must be included. At $300 an acre the amount is $18,656,000. So if you charge that up to the cost of the lock plan, instead of a total of $140,000,000, practically you have a total of $188,656,000; and that is precisely what you have got to face if this plan of lock canal be constructed.

Gen. George W. Davis, first governor of the Canal Zone and also one of the majority members of the Consulting Board of Engineers, who reported in favor of a sea-level canal, testified before the same committee on March 30, 1906, and when asked what he thought of Professor Burr's estimate said:

> I do not think that the price would go up to any such figure; I think it will be a large figure, though I do not think it would go up to that amount. I can not see the basis for a figure so high as that.
>
> Senator Ankeny: Approximately, in your opinion, what would it be?
>
> General Davis: Oh, well, I am afraid to approximate it; but I think it will be some millions of dollars. I feel confident of that. I think the minority of the Commission stated some figures, and based some of their calculations on what the Panama railroad paid per acre for similar land fifty-odd years ago. I do not think that that precedent has any value at all.

Ancon Protestant Chapel.

The corner stone of Ancon Protestant Chapel was laid at 10 o'clock Sunday morning, August 16, under the auspices of the Pacific Masonic Club. An address was made by H. A. Gudger, associate justice of the Canal Zone Supreme Court. The site selected for the chapel is on the slope of Ancon Hill near the Ancon Hospital gate. The building will be one story in height, 25 feet by 60 feet, and will accommodate two hundred people.

Leaks in Comacho Reservoir.

Leaks in Comacho reservoir near Empire have made it necessary to draw the water from elevation 358 to 340 in order that the fissures in the trap rock of the side hills may be filled with clay. It has been ascertained that the leaks are through the side hills and that the dam is in no way affected. Repairs are being made at this time in order that the reservoir may be filled to level 365, its full capacity of 295,857,000 gallons, before the close of the rainy season. With the water at level 340 over fifty million gallons are available.

Panama Railroad Improvements.

The Panama Railroad Company is making experiments with canary yellow, Pullman green, and maroon to find out which paint is the most serviceable in this climate. The maroon is the color now in use. One passenger coach has been painted green and another yellow, and they are running every day in one of the passenger trains, alternating in position next to the engine. At present the yellow is giving best service.

A gauntlet of double tracks is being substituted for the single tracks on which trains of the Panama Railroad Company now cross part of the Black Swamp. Automatic signals will be installed at both ends of the gauntlet, and the four switch tenders now on service at the Swamp will be dispensed with.

The electric light service at Gatun was begun August 1. When the installation is completed about one thousand lights will be in use.

PERFORMANCE OF STEAM SHOVELS

MONTHLY RECORDS IN THE ATLANTIC, CENTRAL, AND PACIFIC DIVISIONS

The subjoined tables show the monthly records of steam shovel work in Canal excavations since American occupation

ATLANTIC DIVISION

COLON DISTRICT

Period.	Average number of shovels at work.	Number of working days in month.	Output per shovel (cu. yds.) per day.	Output per shovel (cu. yds.) per mo.	Rainfall (inches).
1907—					
July	1	13	56	731	11.12
August	2	27	283	7,629	16.37
September	2	24	601	14,419	8.03
October	2	27	761	20,539	19.27
November	2	24	833	20,002	14.27
December	2	25	939	23,473	5.53
1908—					
January	2	26	1,218	31,418	3.18
February	2	24	1,368	32,816	1.29
March	2	26	1,574	40,925	2.81
April	2	25	1,349	33,718	1.47
May	2	25	1,087	27,167	17.30
June	1.8	26	684	17,790	13.33
July	1.54	26	587	15,269	13.67

GATUN LOCKS.

Period	Average number of shovels at work.	Number of working days in month.	Output per shovel (cu. yds.) per day.	Output per shovel (cu. yds.) per mo.	Rainfall (inches).
1907—					
August	3.70	27	784	21,176	16.37
September	4.12	24	884	21,219	8.03
October	5.00	27	1,013	27,355	19.27
November	5.00	24	1,014	24,327	14.27
December	5.00	25	1,286	32,159	5.53
1908—					
January	5.72	26	1,302	33,840	3.18
February	6.01	24	1,222	29,333	1.29
March	7.00	26	1,206	31,366	2.81
April	7.00	25	1,288	32,210	1.47
May	5.76	25	1,156	28,891	17.30
June	4.88	26	1,129	29,364	13.33
July	3.77	26	1,396	36,291	13.67

GATUN SPILLWAY.

Period.	Average number of shovels at work.	Number of working days in month.	Output per shovel (cu. yds.) per day.	Output per shovel (cu. yds.) per mo.	Rainfall (inches).
1907—					
July	1.33	26	423	10,998	11.12
August	2.00	27	498	13,433	16.37
September	2.00	24	757	18,158	8.03
October	2.00	27	745	20,118	19.27
November	2.00	24	854	20,494	14.27
December	2.00	25	1,395	34,878	5.53
1908—					
January	3.00	26	1,264	32,863	3.18
February	3.75	24	1,183	28,402	1.29
March	4.54	26	1,311	34,149	2.81
April	5.00	25	1,184	29,598	1.47
May	4.42	25	908	22,701	17.30
June	3.50	26	1,117	29,045	13.33
July	3.00	26	981	25,514	13.67

CENTRAL DIVISION

CULEBRA SECTION

Period.	Average number of shovels at work.	Number of working days in month.	Output per shovel (cubic yards).		Rainfall (inches).		Maximum temperature in sun at Empire (degrees Fahrenheit).
			Per day.	Per month.	Empire.	Culebra.	
1906—							
January	12.83	26	363	9,430	1.28	1.19	....
February	12.48	23	587	13,494	0.57	0.64	....
March	12.37	27	716	19,335	0.45	1.34	....
April	12.33	24	720	17,289	11.42	8.43	....
May	12.41	27	581	15,684	7.54	7.25	....
June	14.81	26	539	14,026	6.92	8.94	123
July	16.64	25	378	9,441	14.61	20.26	127
August	16.93	27	536	14,461	11.84	12.97	132
September	21.33	24	568	13,664	7.41	6.22	130
October	22.67	27	532	14,373	3.97	8.46	128
November	20.46	24	459	10,833	21.05	19.19	120
December	22.68	25	491	12,267	8.15	9.09	108
1907—							
January	31.04	26	702	18,248	0.08	0.00	104
February	39.87	23	674	15,966	0.13	0.49	108
March	43.88	25	741	18,530	0.16	0.08	105
April	44.12	26	765	19,884	0.09	0.04	110
May	31.70	26	833	21,674	6.22	7.45	118
June	38.28	25	651	16,266	13.53	14.74	118
July	43.38	26	680	17,670	9.85	9.42	118
August	39.70	27	729	19,680	11.28	11.81	120
September	38.50	24	811	19,468	10.86	11.38	123
October	37.63	27	813	21,963	15.44	15.27	123
November	41.88	24	784	18,818	10.40	6.91	123
December	42.72	25	965	24,113	1.47	2.30	124
1908—							
January	43.42	26	1,084	28,177	0.75	0.91	125
February	43.67	24	1,186	28,475	0.00	0.01	124
March	42.19	26	1,171	30,451	0.41	0.13	125
April	41.28	25	1,202	30,031	1.36	1.67	127
May	41.56	25	918	22,948	12.91	12.63	129
June	42.92	26	1,011	26,281	8.21	8.76	126
July (old Chagres Division included)	52.57	26	1,071	27,848	11.79	13.23	121

CHAGRES SECTION

Period.*	Average number of shovels at work.	Number of working days in month.	Output per shovel (cu. yds.) per day.	Output per shovel (cu. yds.) per mo.	Rainfall (inches).
1907—					
August	0.15	27	716	19,333	12.20
September	0.92	24	976	23,420	14.71
October	2.22	27	428	11,544	13.62
November	3.00	24	612	14,681	9.85
December	6.12	25	630	15,756	2.26
1908—					
January	8.11	26	797	20,720	0.20
February	10.33	24	798	19,144	0.11
March	11.47	26	1,082	28,094	0.41
April	11.76	25	1,121	28,018	1.81
May	11.68	25	808	20,197	13.18
June	12.23	26	1,013	26,341	6.55
*July					

*After July 1, 1908, the old Chagres and Culebra divisions were consolidated in the Central Division. No separate records for steam shovels in the old divisions has been kept since that date. Figures for July under "Culebra Section" include work done in the whole Central Division.

Summary for the month of July, 1908:
Average number of shovels at work, 66.68.
Average output per shovel per day, 887 cubic yards.
Average output per shovel per month, 23,083.
The working day for steam shovels is eight hours.

PACIFIC DIVISION

PEDRO MIGUEL LOCKS

Period.	Average number of shovels at work.	Number of working days in month.	Output per shovel (cu. yds.) per day.	Output per shovel (cu. yds.) per mo.	Rainfall (inches).
1908—					
June	0.50	26	600	19,134	4.98
July	1.00	26	626	16,282	9.53

MIRAFLORES LOCKS, DAMS AND SPILLWAY

Period	Average number of shovels at work.	Number of working days in month.	Output per shovel (cu. yds.) per day.	Output per shovel (cu. yds.) per mo.	Rainfall (inches).
1908—					
March	3.50	26	746	19,418	0.00
April	4.50	25	820	20,502	0.76
May	5.75	25	487	12,174	8.65
June	3.80	26	695	18,077	4.98
July	3.80	26	930	24,179	5.66

LA BOCA DISTRICT

Period.	Average number of shovels at work.	Number of working days in month.	Output per shovel (cu. yds.) per day.	Output per shovel (cu. yds.) per mo.	Rainfall (inches).
1908—					
March	1.00	26	476	12,360	0.00
April	1.00	25	452	11,300	0.76
May	1.00	25	688	17,200	8.65
June	1.00	26	562	14,630	4.97
July	1.00	26	623	16,200	5.66

CANAL WORK FOR JULY.

Monthly Report of the Chairman to the Secretary of War.

August 15, 1908.

The Honorable, the Secretary of War,
Washington, D. C.

Sir: I have the honor to submit the following report of operations on the Isthmus for the month of July, 1908.

During the month, the re-organization of the Departments of Construction and Engineering, and Labor, Quarters and Subsistence was partially effected, although this work was not completed at the close of the month.

Under the plan of re-organization, the Department of Construction and Engineering will consist of five divisions, namely, the Atlantic Division, Central Division, Pacific Division, Mechanical Division, and Division of Meteorology and River Hydraulics. The actual work of construction will be in charge of the first three divisions named.

The Atlantic Division will embrace all construction work from the Atlantic ocean to Tabernilla, consisting of the dredged channel from Limon Bay to the Gatun locks, the locks, dam and spillway at Gatun, together with all accessory works, and the clearing of the basin of the artificial lake from Gatun to Tabernilla.

The Central Division embraces the territory from and including Tabernilla, to Pedro Miguel. This division includes practically all of the dry excavation, including the Culebra Cut.

The Pacific Division embraces the territory from and including Pedro Miguel, to the Pacific ocean, and includes the locks at Pedro Miguel and Miraflores, with all accessory works.

In addition to the actual work of Canal construction, these three divisions will have charge, within their respective territories, of the work formerly performed by the Division of Municipal Engineering and the Division of Building Construction. They will also be charged with the execution of such plans for ditching and drainage as may be approved by the Chief Sanitary Officer.

The Heads of the Mechanical Division, and the Division of Meteorology and River Hydraulics will report direct to the Chief Engineer.

The execution of this scheme of organization entails the abolition of the Department of Excavation and Dredging, the Department of Lock and Dam Construction, and the Department of Motive Power and Machinery, Municipal Engineering and Building Construction, together with all divisions comprised in these three departments, except the Mechanical Division and the Division of Meteorology and River Hydraulics.

The Atlantic Division was created, effective July 1, the Central Division, effective July 1, and the Pacific Division, effective July 15.

Effective July 16, the title of the Department of Labor, Quarters and Subsistence was changed to the Quartermaster's Department, and the operation of Commission hotels and mess houses was transferred to the Subsistence Department, created on that date. The Subsistence Department was also charged with the operation of the Panama Railroad Commissaries and allied plants, to be operated on account of the Railroad Company.

Keeping of the personal records of employes was transferred to the Chairman's office.

The general scheme of re-organization, herewith outlined, contemplates also the abolition of the Division of Material and Supplies, the duties pertaining to which will be performed by the Quartermaster's Department. The latter department will also do the grass and brush cutting, garbage collecting, night-soil work, and operation of incinerators, at present performed by the Department of Sanitation.

The above is a brief outline of the re-organization of the Department of Construction and Engineering, and the Department of Labor, Quarters and Subsistence, and the changes effected during the month are noted in the foregoing.

This scheme of organization has been adopted for the purpose of securing economy of administration, a better co-ordination of forces engaged along similar lines of work, and a consequent increased efficiency in the execution of such work.

Department of Construction and Engineering.

The following table summarizes the principal items of construction work accomplished by the Atlantic, Central, and Pacific Divisions during the month:

	Atlantic.	Central.	Pacific.	Total.
S. S. Excavation:				
In prism, cubic yards..........	160,331	1,441.119	122,839	1,724,289
Auxiliary, cubic yards..........	76,543	25,963	20,378	122,884
Dredge Excavation:				
In prism, cubic yards	595,646	....	696,170	1,291,816
Auxiliary, cubic yards......	6,513	....	....	6,513
Total Excavation	839,033	1,467,082	839,387	3,145,502
Explosives used, tons...........	....	208.33	.41	208.74
Rock drilling, feet............	35,305.5	222,055	1,181	258,441.5
New track laid, miles..........	....	10.61	2.49	13.1
Material placed in dams, cubic yards..........	47,208	....	....	47,208
Rock crushed, cubic yards ...	....	7,987	....	7,987
Daily average number of laborers.........	1,639	7.184	2,150	10.973
Rainfall, inches.	13.67	10.5	5.67	....

Atlantic Division.

GATUN LOCKS.

Four steam shovels worked on the lock site during the month and excavated a total of 136,816 cubic yards, all from the Canal prism.

Dredge No. 82 excavated 17,939 cubic yards in the proposed channel to the docks of the handling plant of the locks.

GATUN DAM.

Dredge No. 83 excavated 16,042 cubic yards on the dam site in the French canal.

About 35,224 cubic yards of Bas Obispo rock and 1,222 cubic yards of earth from Mindi were dumped on the south toe of the dam.

On the north toe of the dam, 10,762 cubic yards of earth and rock from Mindi were dumped.

On the upper trestle, 54 linear feet of sheet piling and 557 round piles were driven. On the lower trestle, 125 linear feet of sheet piling and 147 round piles were driven.

SPILLWAY.

Three steam shovels worked during the month on the spillway, excavating a total of 76,543 cubic yards.

One thousand, six hundred and thirty-nine cubic yards of material were excavated from the drainage ditch on the spillway.

At Mindi, two steam shovels excavated 23,515 cubic yards place measurement, while a third shovel working at the magazine spur excavated 4,245 cubic yards.

DREDGING.

Four dredges were at work in the Canal prism in Limon Bay, excavating a total of 595,646 cubic yards.

The dipper dredge *Mindi* was operated in the Canal prism at Mindi from July 11 to the end of the month, excavating 26,509 cubic yards.

The 16-inch suction dredge worked during the month in Folks River, outside the Canal prism, filling a site for a corral for the Division of Material and Supplies, excavating a total of 6,513 cubic yards.

PORTO BELLO.

At the quarry site, steam shovel No. 57 cast over from elevation +85, 7,195 cubic yards of material.

Five acres of the quarry were cleared and burned.

During the month 1,184.5 feet were drilled by star drills, and 1,931.0 feet by hand and tripod drills.

At the close of the month, the reservoir was almost filled.

NOMBRE DE DIOS.

The investigations and surveys of sand deposits were continued satisfactorily during the month.

Central Division.

This division now comprises all operations formerly included in the Culebra and Chagres Divisions, and embraces the territory described in the foregoing portion of this report. Of a total of 1,467,082 cubic yards, excavated in this division during the month, 471,738 cubic yards were classified as earth, and 995,344 cubic yards as rock. This material was all removed by steam shovels except 3,112 cubic yards, taken from the quarry at the Bas Obispo rock crusher by hand.

The quantity of material removed from the Canal prism was 1,441,119 cubic yards, and 25,963 cubic yards were removed from the Obispo Diversion.

The daily average number of steam shovels at work during the month was 52.58 as compared with 55.15 at work on the Culebra and Chagres Divisions for the month of June.

For comparison with the work during the corresponding month of the previous year, in the area embraced in the Central Division, the following table has been prepared.

Period.	Total amount of material excavated by steam shovels	Classification of material		Av. No. of steam shovels working during month	W'kg days in m'th	Av. amount excavated per steam shovel per 8-h d'y	Rainfall during month
		Rock	Earth				
	cu. yds.	%	%			*cu. yds.*	*ins.*
1907 July......	766,511	70	30	43.38	26	680	9.63
1908 July.,....	1,463,970	68	32	62.58	26	1,071	10.50

From this table it will be noted that the amount of material excavated by steam shovels in the Central Division in July, 1908, was nearly double that removed from the same section of the Canal in July, 1907; although it should be remembered that in July, 1907, excavation had not been commenced in what is now the Chagres section of the Central Division.

Notwithstanding the greater rainfall in July, 1908, the average output per shovel per day was over 57 per cent greater in that month than in the corresponding month of the previous year.

During the month the following drilling was accomplished.

By steam and air drills	139,916 feet
By well or churn drills.	70,694 feet
By hand drills	11,445 feet
Total	222,055 feet or 42.05 miles.

During the month, 208.33 tons of explosives were used.

One channeling machine worked at Bas Obispo eight days, accomplishing 1,150 square feet of channeling.

The output of the Bas Obispo rock crusher for the month was 7,987 cubic yards.

Pacific Division.

PEDRO MIGUEL AND MIRAFLORES LOCKS AND DAMS.

During the month, 22,648 cubic yards were removed from the Pedro Miguel lock site, and 91,879 from the Miraflores lock site, 12,490 from the site of the west dam at Miraflores, and 16,200 from the Canal prism at Cardenas Hill.

At Pedro Miguel 3,400 linear feet of track were laid, and at Miraflores 9,750 linear feet. A portion of the tracks laid at Miraflores are on the site of the west dam, the filling of which was begun.

Nine hundred and fifty-four linear feet of drilling was accomplished with well drills and 227 feet by hand.

Nine hundred and sixteen pounds of dynamite was used, chiefly in removing stumps at the lock site.

The storehouse at the foot of Cocoli Hill was completed, and the work shop is well under way.

The work of clearing the site of the lower lock and approach walls preparatory to beginning work with a dredge is in progress.

DREDGING AND LA BOCA SHOPS.

During the month the following dredging was accomplished:

Culebra	392,696 cubic yards
Gopher	157,640 cubic yards
No. 14	145,835 cubic yards

At La Boca shop oil tanks were assembled and placed on dredge No. A-2, bucket ladder overhauled, engines and electric light plant overhauled and readjusted, fenders placed, and scaling completed. Various parts were cast and machined.

On dredge No. 84, all iron work and deck houses were completed, and the electric light plant installed. The assembling of this dredge is proceeding satisfactorily.

Current repairs to floating equipment were attended to as usual.

On water boat No. 2, pipe lines were installed, oil tanks and smokestack completed, and deck is being laid.

On dump barge No. 88, assembling of parts has been completed, and riveting is progressing.

On dump barges Nos. 89 and 90, bolting up, riveting, and placing staging is being done.

It was found necessary to grade a yard for the erection of these sand barges, which is being done, and derrick and hoisting engine for handling material are being installed.

The 15-ton Lobnitz rock breaker reached the Isthmus on the steamer *Median* and is being unloaded.

PRECISE LEVELS.

The field work of the precise level parties was practically completed at the close of the month, and both parties are preparing to tie to a temporary bench mark at San Pablo.

Miscellaneous repair work, and routine office work were given the usual attention.

In the office, the specifications and plans of the handling plant for the Pacific locks were completed.

Preliminary designs were made for a concrete power house, and various studies for concrete forms and for a rock crushing plant are in progress.

Mechanical Division.

The usual work was performed in this division in connection with the maintenance and operation of equipment, electrical work, and manufacture of repair parts.

Effective July 1, the operation of the La Boca Electric Light and Power Plant was transferred from the Panama railroad to this division.

The new La Boca air line (1,500 feet of 8-inch and 1,000 feet of 6-inch pipe) was completed, and extension of main line 30 per cent completed.

The installation of water storage tanks and pipe lines at various points was accomplished.

Division of Municipal Engineering.

The usual work of this division in connection with the construction and maintenance of water works, sewers, and roads was continued during the month.

Division of Building Construction.

During the month, this division completed 37 items of construction, as follows:

Lye vat shed	1
Storehouses	4
Laborers' dormitory	1
Stand laborers' kitchen	1
Division office buildings	2
Dog pens	3
Tool house	1
Range closets	2
Hotel addition	1
Stand laborers' bath house	1
Stand laborers' barracks	5
Market	1
Cook shed	1
Machine shop	1
Butcher shop	1
Type 24 house	1
Type 18 house	1
Type 17 house	5
Total	33

Division of Meteorology and River Hydraulics.

The usual observations and measurements were continued during the month, and no unusual meteorological conditions prevailed.

Relocation of Panama Railroad.

During the month 8,559 cubic yards were excavated on the relocated section, and 158,981 cubic yards placed in embankments. The total excavation to date is 496,383 cubic yards with a total of 2,213,982 cubic yards placed in embankments.

CONNECTION TRACKS FROM OPERATED LINE.

Four hundred and seventy-two linear feet of temporary trestle were driven on Spur 16 at Miraflores tunnel.

Two thousand three hundred and fifty linear feet of temporary track were laid on Spur 2 at Gatun.

One hundred and sixty-six linear feet of temporary track were laid on Spur 11 at Tiger Hill.

Seven hundred and thirty-nine linear feet temporary track were laid on a new spur, No. 18, near Station 141, Gatun.

Two hundred and seven linear feet of track were removed from Spur 15 at Gatun.

Five thousand five hundred and sixty-two linear feet of track were removed from various dump tracks in Gatuncillo Valley.

TRESTLES FOR FILLING.

Two hundred and fifty-five linear feet of trestle were driven on the relocated line at a point opposite San Pablo, and 810 linear feet at a point opposite Juan Grande.

CULVERTS.

A 24-inch galvanized iron pipe culvert 114 feet long was placed on the relocated line at Station 1131-85, opposite Mamei, 21 cubic yards of concrete being used in the foundation.

Riveting on Bridge 309 has been completed. The bridge is being coated with oil and will be painted during the coming dry season. Trains are now being operated over this bridge.

MIRAFLORES TUNNEL.

During the month, 3,200 cubic yards of earth, 1,100 cubic yards loose rock, and 8,500 cubic yards of solid rock were removed from the tunnel, and the excavation was completed.

PERMANENT TRACKS.

Two thousand five hundred and sixty-three linear feet of permanent track were laid this month, making a total of 39,312 linear feet.

Quartermaster's Department.

During the month, fewer men were employed in the United States than in any other month within the last three years. There was a net decrease in the gold force during the month of 106 men.

The movement of labor to and from the Isthmus was much smaller than in the preceding month.

Practically no new construction of quarters was authorized during the month.

Subsistence Department.

During the month, the operation of Commission hotels and mess halls shows a net loss of $3,885.87, which included a loss of $1,326.40 at the Tivoli Hotel.

There has been a noticeable decrease of patronage in our hotels and colored labor kitchens as compared with the month of June, although the European labor messes show a small increase over the preceding month.

Department of Civil Administration.

COURTS.

The Supreme Court was in session twice during the month. Two criminal cases were filed, none was disposed of, and four criminal cases were pending at the close of the month.

In the Circuit Courts, eight civil cases and twenty-three criminal cases were heard and disposed of, and in the District Courts twenty-seven civil and 511 criminal cases were tried and settled.

DIVISION OF REVENUES.

The general revenues of the Canal Zone

for the month of July collected by the Division of Revenues amounted to $52,375.20. Of this total $37,800 was collected on account of retail liquor licenses.

Fourteen vessels entered and eleven vessels cleared at the port of Ancon, and sixteen vessels entered at, and the same number cleared from, the port of Cristobal during the month.

DIVISION OF POLICE AND PRISONS.

During the month 536 arrests were made, a decrease of 37 from the number of arrests during June. No unusual occurrences were reported during the month.

The Coroner investigated ten deaths during the month, four of which resulted from drowning, and three from railroad accidents.

DIVISION OF PUBLIC WORKS.

The average daily consumption of water in the City of Panama was 929,000 gallons, a decrease from the average daily consumption during June.

In Colon, the average daily consumption was 622,563 gallons compared with 498,000 gallons during June.

Collections during July for water rents in Panama for the quarter ended June 30, were $16,009.10, and one bill amounting to $16.80 for the quarter ended December 31, 1907, was collected.

In Colon, the collections from private water consumers for the quarter ended June 30, were $7,656.

FIRE DEPARTMENT.

No serious fires occurred during the month.

DIVISION OF SCHOOLS.

In this division the office force has been engaged in routine duties.

Department of Sanitation.

[The report of the Chief Sanitary Officer was published in THE CANAL RECORD for August 12.]

Respectfully,
(Sgd.) GEO. W. GOETHALS,
Chairman and Chief Engineer.

OFFICIAL CIRCULARS.

Division of Material and Supplies Abolished.

CIRCULAR NO. 183G.

Effective, September 1, 1908: The Division of Material and Supplies, of the Department of Construction and Engineering will be abolished and the duties pertaining thereto will be performed by the Quartermaster's Department of the Isthmian Canal Commission.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, C. Z., August 14, 1908.

Transfer of Certain Sanitation Work.

CIRCULAR NO. 183F.

Effective, September 1, 1908: The following work now done by the Department of Sanitation, will be done by the Atlantic, Central, and Pacific Divisions of the Quartermaster's Department for the Department of Sanitation.

The Atlantic, Central, and Pacific Divisions will do all construction work in connection with ditching and drainage required by the Sanitary Department.

Upon the request of a proper representative of the Sanitary Department, the Division Engineers will, without other authority, promptly prepare and furnish to the Department of Sanitation plats of ground to be drained for the preparation of the scheme. On these maps the Chief Sanitary Officer will have noted the location of the drains, the character of material to be used, the estimates of cost and such other data as are necessary for the intelligent execution of the work. In the preparation of the estimate for cost the Division Engineers will render such assistance as may be required, and will carry into execution, without any change, all plans bearing the approval of the Chief Sanitary Officer.

Superficial ditching, clearing and repairing of drains will be done promptly on the request of the local Sanitary Inspector.

The Quartermaster's Department will do the grass and brush cutting, the garbage collection, night-soil work and will operate the incinerators.

Grass and brush cutting will be done on the request of local Sanitary Inspectors.

The following territories are excluded from the above provisions, and the Department of Sanitation will continue to do the work as heretofore: Mount Hope, Cristobal, Colon, Panama, Ancon, and all cemeteries.

The Department of Sanitation will transfer the personnel, tools, etc., heretofore used on the above work, to the divisions and department indicated.

GEO. W. GOETHALS,
Chairman.

Culebra, C. Z., August 12, 1908.

Injury Claims.

CIRCULAR NO. 195:

For the purpose of administering the provisions of the Act of Congress, approved May 30, 1908, granting to persons employed by the Isthmian Canal Commission in hazardous employment, the right to receive compensation for injuries sustained in the course of their employment, there is appointed a Claim Officer, with station in the office of the Chairman, Culebra, Canal Zone.

Effective August 1, 1908: All rules regarding the requirement of injury reports and requests for meritorious sick leave are abolished, and the following will be in force:

1. Heads of Departments and Divisions will forward to the Claim Officer reports of all injuries on forms C. A.-1 not later than the second day after the accident.

2. Heads of Departments and Divisions will hold a copy of the report of injury in suspense until the injured employe returns to duty, or dies. When he returns to duty, that fact will be reported on form C. A.-2; report of death will be submitted on form C. A.-3. These reports will be accompanied by certificates of disability, issued by physicians of the Isthmian Canal Commission and certificates of disability on form C. A.-7. (The surgeon's certificate need not be accomplished on form C. A.-7).

3. Surgeons in charge of hospitals will forward to the Claim Officer the names of injured employes under their care on the fifteenth day after the injury is sustained, to enable the former to accomplish claims for compensation in the latters' behalf.

4. Injuries resulting in absence from duty for less than 15 days and injuries to persons not entitled to the benefits of the Act of May 30, 1908, will be paid for in accordance with the present regulations of the Isthmian Canal Commission, provided the total amount of injury leave granted during the calendar year does not exceed 30 days or 240 hours. Payment in such cases will be authorized on the receipt of form C. A.-2, and the certificate of disability issued by physicians of the Isthmian Canal Commission. (See paragraph 2).

5. Whenever an employe who is injured by an accident occurring in the course of his employment, is disabled for more than 15 days, a claim for compensation will be accomplished for him by the Claim Officer, (see paragraph 3), and he will, after its approval by the Secretary of Commerce and Labor, be entitled to compensation during disability, but not exceeding one year, at the same rate of pay as if he had continued to be employed.

6. Compensation for periods covering absence on account of injury will ordinarily be allowed after the employe's return to duty, or in cases mentioned in paragraph 5, as soon thereafter as the approval of the Secretary of Commerce and Labor is received.

7. Compensation to claimants, on account of the death of an injured employe, will be arranged for by the Claim Officer with the administrator of estates.

8. Reports required on forms C. A. 1, 2, 3 and 7 will be forwarded to the Claim Officer in duplicate.

GEO. W. GOETHALS,
Chairman.

Culebra, C. Z., Aug. 12, 1908.

Reprimands and Suspensions.

CIRCULAR NO. 196:

Heads of departments and divisions will in future forward to this office copies of all letters of reprimand or caution, and report all suspensions which they may direct for the enforcement of discipline in their departments or divisions showing in each case the period of suspension and its cause.

This information is desired for the personnel files, which should contain a record of every important fact in the history of an employe's service with the Commission.

GEO. W. GOETHALS,
Chairman.

Culebra, C. Z., August 12, 1908.

General Accounts.

OFFICE OF THE DISBURSING OFFICER,
Empire, C. Z., August 13, 1908.

SUPPLEMENT NO. 1, CIRCULAR NO. 44:

To all Concerned: The following General Accounts are hereby created:

Account No. 6—Manufacturing Account.

Subaccount 20—Gatun Locks Sand Account.

To this account will be charged the total cost for labor and material used in securing sand for lock construction, including cost of surveys in locating suitable bed of sand, cost of dredging and transportation to place of storage. Monthly statement will be rendered showing the labor and material expended, total number of yards handled, and unit cost per yard. Manufacturing Account will be credited each month with the value of the sand, and Material Account-Current debited with total amount, except when sand is transferred direct to other departments or to outside individuals, in which case transfer invoice or bill will be rendered. Original receipted transfer invoices will be attached to support monthly statement of Manufacturing Account. If bill is rendered, copy should support Manufacturing Statement.

The price at which the sand will be charged out will be adjusted from time to time as experience may warrant.

Account No. 66—Material and Supplies, Quartermaster's Department:

To this account will be charged the value of material drawn and acknowledged by the Quartermaster's Department, from the Division of Material and Supplies, of material purchased locally and shipped direct to that department, and of transfer invoices from other divisions. This account will be credited with the value of material applied, transferred, or sold to individuals and companies, as per Material Account-Current,

After each inventory a new account will be opened, which will be charged with the value of said inventory, for the credit of the previous account. Any balance remaining in the previous account will be reported to the Chairman for action.

Account No. 67—Material and Supplies, Subsistence Department.

To this account will be charged the value of material drawn and acknowledged by the Subsistence Department, from the Division of Material and Supplies, of material purchased locally and shipped direct to that department, and of transfer invoices from other divisions. This account will be credited with the value of material applied, transferred, or sold to individuals and companies, as per Material Account-Current.

After each inventory a new account will be opened, which will be charged with the value of said inventory, for the credit of the previous account. Any balance remaining in the previous account will be reported to the Chairman for action.

The Quartermaster's and Subsistence Departments are requested to prepare Account-Current, in line with the above, effective with month of August, 1908.

(Sgd) EDWARD J. WILLIAMS.
Disbursing Officer.

Approved:
(Sgd) GEO. W. GOETHALS,
Chairman and Chief Engineer.

Atlantic Division Assignments.

Effective this date: Mr. L. G. Thom, assistant engineer, is placed in charge of all municipal engineering work, and in charge of all repairs to buildings, and such building construction work as is not intimately connected with other work.

Mr. W H. Storm is appointed Superintendent of Construction at Porto Bello, reporting direct to Capt. H. W. Stickle, assistant engineer.

The regular reports heretofore made by foremen will be continued without any change.

WM. L. SIBERT,
Division Engineer.

Gatun, C. Z., August 11, 1908.

Concert.

By the I. C. C. Band at Cristobal, C. Z., Wednesday, August 19, at 8.15 p. m.:

REQUEST PROGRAM.

1	March	*Washington Greys*	Santelman
2	Selection	*The Grand Mogul*	Luders
3	Waltz	*Dream of Heaven*	Bauer
4	*a* Intermezzo	*Ruralistic*	Bagley
	b Schottische	*Let Me Be Your Lemon Coon*	Allen
5	Selection	*Reminiscences of Scotland*	Godfrey
6	Morceau	*Dawn of Love*	Bendix
7	Selection	*Merry Widow*	Lenar
8	Caprice	*Danny and His Hobby-horse*	Pryor
9	Overture	*If I Were King*	Adam
10	March	*Gov. Magoon's*	Varona

CHAS. E. JENNINGS, *Musical Director.*

The next concert will be given at Hotel Tivoli on September 6.

Examination for Clerk.

A local examination for the position of clerk in the service of the Isthmian Canal Commission will be held Sunday, September 13, 1908. The exact hour and place of the examination will be announced later. Copies of the Manual of Examinations, containing all necessary information and sample questions, and copies of the prescribed application form, will be furnished upon written request by the Secretary of the Isthmian Civil Service Board, Office of the Chairman, Culebra, Canal Zone.

The examination is open to citizens of the United States between the ages of 20 and 45 years. Persons intending to enter the examination should file their applications at once, in order that requisition may be made for sufficient papers and other necessary arrangements completed by the Board of Examiners.

Examination for Physician.

A local examination for the position of physician in the service of the Isthmian Canal Commission, entrance salary $1,800 per annum, will be held October 14, 1908, the exact hour and place of the examination to be announced later. The Manual of Examinations, containing all necessary information and Application Form, may be obtained from the Secretary of the Isthmian Civil Service Board, office of the Chairman, Culebra, Canal Zone.

Examination for Examiner of Accounts.

The Isthmian Civil Service Board will hold at Culebra, September 3 and 4, 1908, an examination for the position of Examiner of Accounts under the Interstate Commerce Commission, at salaries ranging from $1,800 to $3,000 per annum, and traveling expenses. This examination is open to citizens of the United States who have had high grade training and experience in railroad accounting. An advertisement containing a description of the examination and other information of interest to applicants has been posted in every post-office in the Canal Zone.

The printed application form can be had upon application to the Secretary of the Isthmian Civil Service Board, office of the Chairman, Culebra, Canal Zone.

Hon. Herbert G. Squiers, American Minister to Panama. Mrs. Squiers, and their family sailed for the States on the *Allianca*, August 15.

The Tivoli Club will hold its annual meeting for the election of officers at 8.15 p. m., August 24, in the office formerly occupied by the Collector of Revenues, old Administration Building, Panama.

At Mount Hope storehouse all the highly inflammable materials, such as oils and paints, have been moved into the new fireproof warehouse. This building is 57 feet wide and 250 feet long, covered with corrugated metal and has a sheet iron floor.

Suction dredge, No. 83, which has been at work cleaning silt from the old channel of the Chagres River and the old French Canal channel on the Gatun Dam site, has been added to the dredging fleet at Colon, and will be set at work in the Canal prism on the shore of Limon Bay.

COMMISSION CLUB HOUSES.

Activities of the Young Men's Christian Association.

REPORT FOR JULY, 1908.

Total membership	1,328
Total number of bowling games	5,196
Number of local bowling contests	34
Number of match bowling contests	9
Number contestants in duck-pin tournament	32
Total number of pool and billiard games	8,677
Number contestants in pool tournament	40
Total income from soda fountain	$1,441.36
Number basketball contests	1
Number of different men using gymnasium	128
Number of men enrolled in systematic gymnasium class work	48
Total attendance of men using gymnasium	980
Number training systematically in outdoor athletics	32
Number enrolled in chess and checker clubs	73
Number chess contests	7
Number enrolled in glee club	40
Number enrolled in dramatic and minstrel clubs	10
Number enrolled in orchestras	14
Number enrolled in Bible clubs	14
Number enrolled in educational classes	56
Spanish	38
Shorthand	4
Civil service	6
Electricity	8
Number members of library	428
Total number of books withdrawn	1,292
Number of imported entertainments	1
Number of local entertainments	5
Number of functions outside of Association management	10
Number of afternoons for women	26
Number of evening functions to which women were invited	28
Number of committees	25
Different men on committees	127
Number men called on in hospitals	54
Number letters written at public tables	5,570
Total attendance at buildings	34,075
Average attendance per day	1,105

GORGONA.

In bowling Gorgona defeated Empire last week three straight games on the Gorgona alleys by the following score:

Gorgona—858, 788, 769; Empire—807, 775, 729.

In a return match on August 6, the girls defeated the boys by the following score:

Girls—335, 338; Boys—325, 319.

The tournament of the local bowling league has been concluded. The scores of the leaders, each playing 22 games follow:

Hayes, 9,919; Lasker, 9,798; La Rose, 9,734; Sprecken, 9,704, Varen Kamp, 9,607; Collins, 9,318; Chef, 9,314. Mac Connaughy; 9,300; Mc Cormick, 9,289.

High average for individuals were made by Lasker, 173.6; La Rose, 163.5; Hinckley, 158.8.

High averages for two games were made by Lasker, 195; La Rose, 194.5; Mac Connaughy, 192.5.

The high team scores for two games were made by La Rose, 1,026; Mac Connaughy, 981; Hayes, 978.

Scores of 200 or better were made in the week ended August 15, by West, 248, Lasker, 216; Collins 211; Grosse, 206 Clarke, 204; Mac Connaughy, 202; Hayes, 201; Hendricks; 201; Driscoll, 200.

EMPIRE.

The Nordica Concert Quartet gave the second concert on Thursday evening, August 13. Many were present and enjoyed the entertainment.

The gymnasium class is doing good work. One of the results of the class is an indoor baseball team that defeated Cristobal on Saturday evening, August 15, with a score of 20 to 12. Empire also won from Cristobal at basket ball with a score of 8 to 7. All the men of Empire should get in the class.

The following is a partial score of the duck pin tournament up to August 16:

Name	*Won*	*Lost*	*Per Cent.*
Thatcher	9	1	90
Shore	17	3	85
Shaughnessey	14	4	78
Durand	6	2	75
Huson	15	6	71
Green	5	2	71
Brown	12	6	66
McGinsey	8	5	61

The high score men are: Durand, 113; Gorham, 110; Bardleson, 105. The high average men are: Durand. 87.6; Shaughnessey, 85.; Gorham. 84.6; Shore, 84.6. Five hundred and forty-six games have been rolled in the tournament, leaving about 350 yet to be rolled

CULEBRA.

Saturday evening, August 15, the Culebra Chess team visited Cristobal and defeated the Y. M. C. A. team at that place by taking 15 out of the 20 games played. The Cristobal team will play a return match in Culebra early in September.

The Nordica Concert Company gave its return engagement Wednesday evening, August 12. The concert was well attended and thoroughly enjoyed. The next entertainment will be by the Lotus Glee Club of New York, which will arrive on the Isthmus about August 27.

The I. C. C. Band gave an excellent concert Sunday evening at 6 o'clock. The change in the hour seemed to suit as more than five hundred people were present.

Rainfall, August 1 to 15, 1908, Inclusive

(MIDNIGHT TO MIDNIGHT.)

Stations.	Maximum in one day.	Total
Atlantic Division—		
Cristobal	2.28	12.09
Brazos Brook	3.50	11.79
Gatun	3.64	11.80
Bohio	8.82	16.96
Central Division—		
Tabernilla	1.63	5.52
San Pablo	1.05	5.24
Bas Obispo	2.15	5.96
Gamboa	1.60	7.73
Empire	2.17	4.56
Camacho	2.36	4.97
Culebra	1.56	4.54
Rio Grande	1.58	4.57
Pacific Division—		
Pedro Miguel	1.59	4.88
La Boca	3.43	6.89
Ancon	3.10	6.52
Upper Chagres.		
Alhajuela	3.39	12.56

Flood Stages in Chagres River.

Date.	*Alhajuela	*Gamboa
	Feet above low water	*Feet above low water*
August 9	3.07	3.80
10	3.80	7.90
11	4.55	7.25
12	3.65	5.70
13	4.35	5.25
14	4.07	6.20
15	1.79	3.60

*Low water is 92 feet above sea level at Alhajuela, and 46 feet above at Gamboa.

Misdirected Letters.

Division of Letters

Ancon, Station A, August 19, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions have been received in the office of the Director of Posts and may be secured on request of addressee:

Arena, Capt. Antono
Bennett, George
Bravo, E.
Castello, P.
David, Johnnie
Dodge, Wm.
Goodman, Robert
Goodrich, Irwin
Helt, Harry C.
Howarth, G. B.
Karner, William J.
Keefe, Sterrit
King, Albert
Liggy, A
Linz, Mr. and Mrs. Edw.
Lueders, William H.
Lydon, Michael
Mereness, Dr. H. D.
Novak, Albert
O'Connell, Tom
Persons, Mrs. C. L.
Pifher, Arthur J.
Ratleree, A. L.
Robicheaux, Mrs. L. P.
Seewald, R. S.
Shearer, Samuel G.
Squire, A. H.
Stevenson, James
Walters, Elmer (2)
Wilkinson, Jos. W.
Yeagly, James
Yeiser, Carl

The steamship *Ole Bull* left Baltimore August 8 with the following cargo for the Commission: 75 barrels of lime, 156 tons of coke, 4 cars of steel plate, 900 cases of dynamite, boiler tubes, and 42 cars of sewer pipe. The vessel should arrive about August 18.

Arrivals and departures of steamships at the Port of Ancon, in the week ending Friday, August 14, were:

Arrivals—August 9, *Ecuador* from Guayaquil; August 12, *City of Para* from San Francisco; August 13, *Mapocho* from Valparaiso.

Departures—August 11, *Huasco* to Valparaiso; August 12, *City of Sydney* to San Francisco.

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week beginning August 19.

FRESH MEATS, POULTRY AND COLD MEATS.

		Price
Beef—Sirloin roast	per lb	30
Rump roast	per lb	30
Porterhouse	per lb	30
Rib-roast, short cut (not under $3\frac{1}{2}$ pounds)	per lb	24
Rib-roast, second cut (not under 3 lbs)		20
Chuck-roast	per lb	15
Soup	per lb	9
Stew	per lb	12
Corned	per lb	12, 14, 16
Suet	per lb	4
Steaks—Sirloin	per lb	30
Porterhouse	per lb	30
Rump	per lb	30
Round	per lb	24
Veal—Cutlets	per lb	24
Short-cut chops	per lb	24
Loin	per lb	23
Entire forequarters (15 to 20 lbs)	per lb	11
For stewing	per lb	11
Mutton—Entire forequarters, (not under 10 lbs)	per lb	9
Short-cut chops	per lb	20
Leg (8 to 10 lbs)	per lb	18
Lamb—For stewing	per lb	10
Entire forequarters	per lb	10
Chops	per lb	30
Leg (6 to 8 lbs)	per lb	28
Pork—Cuts	per lb	20
Livers—Beef	per lb	11
Calf	each	60
Sausage—Pork	per lb	16
Sweet bread—Veal	each	1.20
Beef	per lb	25
Pigs' tongues (salted)	per lb	15
Ox tongues	each	90
Chickens, dressed (milk-fed)	each	1.40
Chickens, large	each	1.90
Fowls, medium and large	each, $1.00 and	1.25
Ducks, fatted (fancy)	each	1.10
Suckling pigs	each	4.90
Turkeys	per lb	30
Squabs	each	45
Eggs (fresh)	per dozen	32
Capons	each	2.40
Broilers	each	70
Bacon—Strips	per lb	23
English, breakfast, sliced	per lb	§26
Ham—Sugar-cured, sliced	per lb	§25
One-half, for boiling	per lb	§20
Westphalia	per lb	45
Ferris	per lb	19
Beef, salt, family	per lb	14
Salt Pork	per lb	13

DAIRY PRODUCTS

Butter, prints, prime quality	per lb	33
Cheese—Cream, Phila	each	22
Neufchatel	each	6
Young America	per lb	22
Swiss	per lb	35
Gouda	per lb	34
Edam	each	1.05
Camembert	per lb	28
McLaren's	per jar	15
Pinxter's	per tin	22
Milk, Briarcliff	quart	25
Buttermilk	bottle	15

FRUITS AND VEGETABLES.

Cucumbers	per lb	10
Lettuce	per lb	20
White potatoes	per lb	$3\frac{1}{2}$
Cabbage	per lb	4
Onions	per lb	$4\frac{1}{2}$
Corn	dozen	25
Sweet potatoes	per lb	$2\frac{1}{2}$
Yams	per lb	$3\frac{1}{2}$

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§ Sold only from cold-storage and not from Commissaries.

LEGAL NOTICE.

United States of America Canal Zone. } In the First Judicial Circuit.

George Blake, Jamaican, died intestate July 15, 1907, leaving an estate, consisting of three houses in Pedro Miguel. The claimants for the estate have not proved that they are the legitimate heirs of the decedent, and the Collector of Revenues has filed a petition for escheat under Sections 779-781 of the Code of Civil Procedure.

Notice is hereby given to all concerned to appear at the court house in Ancon on October 5, 1908, at 9 o'clock a. m., to establish their claims to the said estate, or to show cause why the same should not escheat to the Canal Zone.

WALTER EMERY,
Circuit Court Clerk.

Proposals for Cross and Switch Ties.

Sealed proposals will be received at the office of W. G. Tubby, Purchasing Agent on the Isthmus, Cristobal, C. Z., up to 3.30 p. m., Wednesday, September 9, 1908, at which time they will be opened in public, for the sale to the Isthmian Canal Commission of forty thousand (40,000) first-class cross ties, four thousand (4,000) second-class cross ties, ten (10) sets of No. 7 switch ties, and ten (10) sets of No. 10 switch ties, according to the following specifications:

1. The timber used shall be black or yellow Guaiacum, commonly called Guayacan or Lignum Vitae.
2. All ties shall be well and smoothly hewed out of straight-growing timber of specified dimensions and out of wind, sawed or square-cut ends, with straight and parallel faces. All ties shall have bark entirely removed when cut. Ties shall be free from splits, shakes, loose or decayed knots, or any other imperfections which may impair their strength or durability.
3. Except in pole ties with rounded sides, or in half-round ties, the width of face and thickness shall conform to sizes given in the table of dimensions below, but a variation of size will be permitted of one inch over in thickness, one inch over in width, and three inches over in length.
4. In pole ties with rounded sides, and in half-round ties, the width of face may be less than that given in the table of dimensions, but the least area of cross section shall not be less than the area corresponding to the tabular dimension, and in no case shall the width of face be less than six inches for first-class and five and one-half inches for second-class ties.

TABLE OF DIMENSIONS.

	Thickness by width of face	Length	Maximum variat'n from straight edge	
			Top and bottom	Sides
1st class...	6″ x8″	8′0″	½″	2″
2d class....	5½″x7″	7′9″	1″	3″

SWITCH TIES.

No. 7 Turnout.				*No. 10 Turnout.*			
Number	Dimensions	Length	Feet B. M.	Number	Dimensions	Length	Feet B. M.
4	6½x8½	9′0″	165.76	4	6½x8½	9′0″	165.76
7	do	9′6″	306.18	5	do	9′6″	218.70
4	do	10′0″	184.16	7	do	10′0″	322.28
5	do	10′6″	241.70	5	do	10′6″	241.70
3	do	11′0″	151.92	5	do	11′0″	253.20
3	do	11′6″	158.82	4	do	11′6″	211.76
4	do	12′0″	221.00	4	do	12′0″	221.00
2	do	12′6″	115.10	3	do	12′6″	172.62
4	do	13′0″	239.40	3	do	13′0″	179.52
3	7x9	13′6″	212.63	3	7x9	13′6″	212.63
1	do	14′0″	73.50	3	do	14′0″	220.50
2	do	14′6″	152.25	3	do	14′6″	228.38
2	do	15′0″	157.50	5	do	15′0″	393.75
3	5½x8½	15′6″	214.08	2	6½x8½	15′6″	142.72
47			2,594.00	56			3,184.52

Delivery will be made on the docks at Cristobal or La Boca, C. Z., or within fifty feet of any track of of the Panama railroad, not more than four feet above or four feet below grade, and ties will be inspected as they are unloaded on the dock or when loaded on cars. Delivery shall not begin later than October 1, 1908, and shall be completed by January 1, 1909. Bidders shall furnish a sample not less than five inches square and twelve inches long of the kind of wood they propose to furnish, and submit certified check, money order or cash in the amount of one hundred (100) dollars, U. S. currency, as evidence of responsibility and ability to carry out the provisions of the contract, and nine hundred (900) dollars, U. S. currency, additional at the time of execution of the contract. Bids shall be enclosed in sealed envelopes plainly marked "Proposals for Furnishing Guaiacum Ties." The Commission reserves the right to reject any and all bids.

Tug Service Porto Bello and Nombre de Dios.

Effective, August 6, 1908: The following is the schedule for tug service between Cristobal, Porto Bello and Nombre de Dios:

Friday: Leave Cristobal after Train 2 for Porto Bello and Nombre de Dios; returning same day.

Saturday: Leave Cristobal after Train 2 for Porto Bello only; returning, leave Porto Bello 5.30 p. m.

Sunday: Leave Cristobal 6.30 a. m. for Porto Bello only; returning same day.

Monday: Leave Cristobal after Train 2 for Porto Bello and Nombre de Dios; returning same day.

Tuesday: Leave Cristobal after Train 2 without tow, for Borto Bello only; returning, leave Porto Bello 2.15 p. m., without tow.

Wednesday: Leave Cristobal after Train 2 for Porto Bello and Nombre de Dios; returning same day.

MOVEMENT OF OCEAN VESSELS.

The following is a list of the sailings of the Panama Railroad Steamship Company, of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON.

Esperanza	P. R. R.	Wednesday	Aug. 12
Pr. Aug. Wilhelm	H.-A.	Saturday	Aug. 15
Colon	P. R. R.	Monday	Aug. 17
Advance	P. R. R.	Saturday	Aug. 22
Tagus	R.-M.	Saturday	Aug. 22
Allianca	P. R. R.	Thursday	Aug. 27
Prinz Joachim	H.-A.	Saturday	Aug. 29
Finance	P. R. R.	Tuesday	Sept. 1
Esperanza	P. R. R.	Saturday	Sept. 5
Magdalena	R.-M.	Saturday	Sept. 5
Colon	P. R. R.	Thursday	Sept. 10
Pr. Aug. Wilhelm	H.-A.	Saturday	Sept. 12
Advance	P. R. R.	Tuesday	Sept. 15
Orinoco	R.-M.	Saturday	Sept. 19
Allianca	P. R. R.	Monday	Sept. 21
Finance	P. R. R.	Saturday	Sept. 26
Prinz Joachim	H.-A.	Saturday	Sept. 26
Panama	P. R. R.	Thursday	Oct. 1
Atrato	R.-M.	Saturday	Oct. 3
Colon	P. R. R.	Tuesday	Oct. 6

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston enroute to Colon.

FROM COLON TO NEW YORK.

Prinz Joachim	H.-A.	Tuesday	Aug. 18
Finance	P. R. R.	Thursday	Aug. 20
Esperanza	P. R. R.	Tuesday	Aug. 25
Magdalena	R. M.	Tuesday	Aug. 25
Colon	P. R. R.	Sunday	Aug. 30
Pr. Aug. Wilhelm	H.-A.	Tuesday	Sept. 1
Advance	P. R. R.	Friday	Sept. 4
Orinoco	R.-M.	Tuesday	Sept. 8
Allianca	P. R. R.	Wednesday	Sept. 9
Finance	P. R. R.	Monday	Sept. 14
Prinz Joachim	H.-A.	Tuesday	Sept. 15
Esperanza	P. R. R.	Friday	Sept. 18
Atrato	R.-M.	Tuesday	Sept. 22
Colon	P. R. R.	Wednesday	Sept. 23
Advance	P. R. R.	Monday	Sept. 28
Pr. Aug. Wilhelm	H.-A.	Tuesday	Sept. 29
Allianca	P. R. R.	Saturday	Oct. 3
Clyde	R.-M.	Tuesday	Oct. 6
Finance	P. R. R.	Thursday	Oct. 8
Panama	P. R. R.	Tuesday	Oct. 13
Prinz Joachim	H.-A.	Tuesday	Oct. 13
Colon	P. R. R.	Monday	Oct. 19
Tagus	R.-M.	Tuesday	Oct. 20

FROM NEW ORLEANS TO COLON.

Ellis	U.F.C.	Saturday	Aug. 15
Cartago	U.F.C.	Saturday	Aug. 22
Harry T. Inge	U.F.C.	Saturday	Aug. 29
Ellis	U.F.C.	Saturday	Sept. 5
Cartago	U.F.C.	Saturday	Sept. 12
Harry T. Inge	U.F.C.	Saturday	Sept. 19
Ellis	U.F.C.	Saturday	Sept. 26

FROM COLON TO NEW ORLEANS.

Harry T. Inge	U.F.C.	Tuesday	Aug. 18
Ellis	U.F.C.	Tuesday	Aug. 25
Cartago	U.F.C.	Tuesday	Sept. 1
Harry T. Inge	U.F.C.	Tuesday	Sept. 8
Ellis	U.F.C.	Tuesday	Sept. 15
Cartago	U.F.C.	Tuesday	Sept. 22
Harry T. Inge	U.F.C.	Tuesday	Sept. 29

FROM COLON TO BARBADOS, CALLING AT TRINIDAD.

Trent	R.-M.	Tuesday	Aug. 18
Tagus	R.-M.	Tuesday	Sept. 1
Magdalena	R.-M.	Tuesday	Sept. 15
Orinoco	R.-M.	Tuesday	Sept. 29

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company dispatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan ports, Martinique and Guadeloupe on the 3d and 20th of each month.

The tug *Scully*, with two barges containing 200 tons of coke and 300 tons of blacksmith's coal for the Commission, left Baltimore August 8, and should here on or about August 20.

CANAL RECORD

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The Canal Record

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THE CANAL RECORD
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Isthmus of Panama.

No communication, either for publication or requesting information, will receive attention unless signed with the full name and address of the writer.

NOTES OF PROGRESS.

President Roosevelt on Canal Work.

[Panama Star & Herald.]

Oyster Bay, N. Y., Aug. 24.—President Roosevelt has made public a report made to him on August 6, by a special committee appointed to investigate conditions, especially in regard to labor and accommodations, on the Isthmus of Panama. President Roosevelt's letter of appreciation, sent to the commissioners on August 21, is as follows:

"Gentlemen: I have received your admirable report on the conditions in Panama. I am greatly impressed with it and shall submit it to Congress with appropriate recommendations as soon as that body convenes. Meanwhile I shall send your recommendations to Colonel Goethals and ask him to put them into effect, so far as is possible and as he deems practicable, and to report to me with his recommendations.

"I am, naturally, extremely pleased at the very satisfactory showing that your report makes of the conditions under Colonel Goethals and his associates. I doubt if there is any piece of work undertaken on behalf of the American people in recent years where the American people have more reason to be proud than of the work done on the Panama Canal. The success has literally been astounding. Five years ago when we undertook the task, no sane man would have dared hoped for the results which have already been achieved. The work itself has been greatly advanced and the rapidity of the rate of progress has steadily increased."

New Suction Dredge "Sandpiper."

The 20-inch suction dredge *Sandpiper*, which will perform the earth excavation at Miraflores locks and dams, began her ten days' test at La Boca on August 25. This test is made under the guarantee of the manufacturer, the Maryland Steel Company, and after it is concluded the dredge will be given a further test of one month working in the silt in the Canal prism at La Boca, the Pacific entrance of the Canal. The dredge will then be taken to Miraflores through the channel of the Rio Grande at high tide.

The *Sandpiper* is the third of the 20-inch suction dredges brought from the States, knocked down, and set up on the Isthmus, the other two having been constructed at the Cristobal dry docks. It is 136 feet long, 48 feet beam and the depth of the hold is 9 feet. It is built to dredge to a depth not exceeding 40 feet. The machinery consists of a 20-inch centrifugal pump, direct driven by twin Ideal horizontal tandem high speed compound engines, fed by two Scotch marine boilers, in which crude oil is used for fuel. The condenser and circulator are independent. The Maltby agitator is used at present. It is estimated that about 100 barrels of oil will be used each day of 24 hours, and the oil storage capacity is sufficient for three days. Quarters for the officers and crew are fitted up on the second deck, which will be screened to guard against malaria-bearing mosquitoes. The complement consists of a captain, a mate, three operators, three engineers, six oilers, three firemen and a crew of from 20 to 25 men. When working at her full capacity the dredge will be run 24 hours a day, and the crew will work in three shifts.

Nearly Twelve Millions of Materials.

The value of material received by the Division of Material and Supplies during the fiscal year which ended on June 30, exceeded $11,607,000, and the value of material disbursed during the same period exceeded $11,685,000, or $78,000 more than that of the material received. This was a great increase on the preceding fiscal year when the value of material handled was approximately $9,500,000. The total value of receipts and disbursements handled by the Division during the year 1907-08 aggregated $4,792,252 more than the receipts and disbursements of the previous year. The following table shows the value of material received and disbursed during the last fiscal year:

MATERIAL RECEIVED.

Received from the United States on U. S. bills	$10,507,016.07
U. S. Department bills	30,969.18
Local purchases	17,210.41
Purchased from the Panama railroad	390,799.77
Manufactured for stock	493,556.30
Returned to stock	167,542.90
	$11,607,095.63

MATERIAL ISSUED.

Issued to all departments:	
New Stock	$11,502,263.77
French Stock	182,894.56
	$11,685,158.33

The French material, value $182,894.56, shown in the above table, included all scrap brass, copper and cast iron used in the foundries at the Gorgona shops. During the year the Division received 72 full cargoes of material and part cargoes from 250 ships.

Gatun Locks Cableways.

Representatives of the various companies that have submitted bids on the cableways of the material and concrete handling plant for the Gatun locks are on the Isthmus assisting the Commission in the work of selecting the most favorable bid. The part of the handling plant for which awards will be made at this time includes one single unloading cableway and two duplex unloading cableways for the docks and four duplex cableways for the locks. Each cableway is about 800 feet long.

Sending Money Home.

Money orders to the amount of $441,789.54 were issued in the Canal Zone during the month of July. Of this amount $318,013.68 was payable in the United States and elsewhere, and the remainder in the Canal Zone. The number of money orders issued was 14,538, and the average amount for which each order was issued was thus $30.39.

At Cristobal 2,545 orders were issued, the total amount being $75,294.44; at Empire 1,888 orders, value $61,203.59; at Gorgona 1,612 orders, value $55,447.24. The large mechanical shops on the Isthmus are located at Empire, Gorgona, and Cristobal. The number of orders issued at Ancon was 1,431, value $34,562.46, and in Culebra 1,370, value $40,782.80. In the eleven remaining post offices in the Canal Zone, less than 1,000 orders each were issued, the value running from $1,068.08 at Bohio, where 57 orders were issued, to $29,690.31 at Las Cascadas, where 829 orders were issued. Fees for money orders amounted to $1,821.03. Stamps to the amount of $6,181 were sold. The postal revenue was, therefore, $3,714.02, 40 per cent of the face value of each stamp being paid into the Panamanian treasury. The total revenue from money order and stamp business was $5,535.05.

The internal revenue, exclusive of the postal and money order business, amounted to $52,805.23, of which $37,800 was collected for retail liquor licenses, and the remainder in other taxes and licenses, including $1,875.76 for land and building rents.

Central Division Work.

Up to the present time not a little of the work done in Culebra Cut has been in widening the narrow channel made by the French, and in consequence the amount of material taken out since the beginning of the American occupation—more than 21,000,000 yards—has made comparatively little difference in the actual depth of the Cut, being confined largely to widening the narrow channel made by the French. From this time on, however, each steam shovel that is

NOTES OF PROGRESS.

(Continued)

sent through the bottom will take out material below the lowest level reached by the French.

The construction of an inclined track on a grade of about 2 per cent will soon be begun at a point opposite Las Cascadas. It will extend from the center line of the relocated Panama railroad, on the 45-foot berm of the Canal at elevation 95, in a northerly direction to connect with the top of the dyke of the Obispo Diversion, near the old French powder house, at elevation 175. This track will be used by trains hauling dirt from the Canal prism to the dykes, and it is the intention to maintain it, until the diversion is entirely completed and made perfectly safe as the permanent channel to catch the water flowing through Culebra Cut on the east side.

The monthly meeting of the Central Division chiefs was held in the office of the Division Engineer at Empire, Sunday morning, August 23. Those present were the Division Engineer, Assistant Division Engineer, Resident Engineer and superintendents of construction. Matters of importance in the routine work of the Division were brought up by the district superintendents and were thoroughly discussed.

The weather in August has been generally favorable to the work in this Division. The slides are being handled satisfactorily and little difficulty is experienced other than the anticipated drawbacks of the rainy season.

Liquor Law Amendments.

The Isthmian Canal Commission, at its 145th meeting, held at Culebra, on July 18, 1908, adopted an amendment to Sections 11 and 17 of the regulations respecting the sale of intoxicating liquors in the Canal Zone.

That part of Section 11 respecting the furniture which may be in a saloon, was amended to read:

There shall not be kept in any such room any tables, chairs, or benches for the use of customers, and only such tables, chairs, and benches as may be necessary for the use of the proprietor or proprietors and of the employes of the saloon, bar, or drinking place in the transaction of their business.

That part of Section 11 providing that no intoxicated person or minor shall be permitted in or about a saloon, was amended to read as follows:

It shall be unlawful for the holder of any license herein provided for to maintain any but a quiet and orderly place or to sell, or serve, or permit to be sold or served or to be given away, any intoxicating liquors to any intoxicated person, or to any person under the age of 15 years, or to permit any intoxicated person, or any person under the age of 15 years, to remain in or about the premises where such liquors are kept for sale, or to sell or keep therein any wine, beer, or liquors, except such as is of good, standard quality, as defined by the sanitary regulations of the Canal Zone, and free from adulteration.

Section 17 was amended to read as follows:

In case any holder of a license herein provided for shall be found guilty of a violation of any of the provisions of this ordinance, or of any police regulation or law governing the sale of liquors, now or hereafter in force in the Canal Zone, he shall be punished by fine or imprisonment, as provided in the preceding section, or by any one or all of these penalties in the discretion of the court. But, upon second conviction, his license shall at once become null and void as the consequence of such conviction, and he shall also be liable to fine or imprisonment, or both, in the discretion of the court.

These amendments have been approved by the Secretary of War.

Steam Shovel Records in July.

Steam shovels Nos. 256 and 262, at work in Culebra Cut surpassed all excavation records made since the beginning of American control, by taking out respectively 54,927 cubic yards and 53,440 cubic yards of material during 26 days in July. Other high records made in July follow:

ATLANTIC DIVISION.

MINDI.

Shovel No.	Earth, Cubic yards.	Rock, Cubic yards.	Total, Cubic yards.
103	3,945	18,470	22,415
133	1,100	....	1,100

CENTRAL DIVISION.

TABERNILLA DISTRICT.

Shovel No.	Earth, Cubic yards.	Rock, Cubic yards.	Total, Cubic yards.
254	13,579	24,395	37,974
114	19,933	15,662	35,595

GORGONA DISTRICT.

Shovel No.	Earth, Cubic yards.	Rock, Cubic yards.	Total, Cubic yards.
256	35,716	19,211	54,927
108	26,140	....	26,140

BAS OBISPO DISTRICT.

Shovel No.	Earth, Cubic yards.	Rock, Cubic yards.	Total, Cubic yards.
212	3,903	35,129	39,032
116	2,698	24,286	26,984

EMPIRE DISTRICT.

Shovel No.	Earth, Cubic yards.	Rock, Cubic yards.	Total, Cubic yards.
262	2,672	50,768	53,440
210	14,383	26,928	41,311

CULEBRA DISTRICT.

Shovel No.	Earth, Cubic yards.	Rock, Cubic yards.	Total, Cubic yards.
263	....	43,690	43,690
213	....	41,312	41,312

PEDRO MIGUEL.

Shovel No.	Earth, Cubic yards.	Rock, Cubic yards.	Total, Cubic yards.
257	16,187	16,848	33,035
209	29,261	....	29,261

OBISPO DIVERSION.

Shovel No.	Earth, Cubic yards.	Rock, Cubic yards.	Total, Cubic yards.
126	17,423	2,463	19,886

PACIFIC DIVISION.

Shovel No.	Earth, Cubic yards.	Rock, Cubic yards.	Total, Cubic yards.
258	30,856	1,624	32 480
130	19,035	2,115	21,150

HIGHEST MONTHLY RECORD FOR JULY.

Shovel No.	Location.	Total excavation.	Classification.		Blasted Material.
			Earth.	Rock.	
114	Tabernilla	35,595	19,933	15,662	27,368
254	Tabernilla	37,974	13,579	24,395	27,408
108	Gorgona	26,140	26 140	......	......
256	Gorgona	54,927	35,716	19,211	41,210
116	Bas Obispo	26,984	2,698	24,286	24,286
212	Bas Obispo	39,032	3,903	35,129	35,129
210	Empire	41,311	14,383	26,928	41,311
262	Empire	53,440	2,672	50,768	50,768
213	Culebra	41,312	......	41,312	41,312
263	Culebra	43,690	......	43,690	43,690
257	Pedro Miguel	33,035	16,187	16,848	33,035

HIGH DAILY RECORDS—JULY, 1908.

Shovel No.	Location.	Date.	Character material.	Yardage.
115	Tabernilla	July 22	Earth	2,010
253	Tabernilla	July 9	Rock	1,830
256	Gorgona	July 8	Earth	2,150
108	Gorgona	July 6	Earth	1,430
212	Bas Obispo	July 25	Rock and earth	2,770
252	Bas Obispo	July 21	Rock and earth	2,050
262	Empire	July 13	Earth	2,920
204	Empire	July 29	Rock	2,560
210	Empire	July 7	Rock and earth	2,560
223	Culebra	July 8	Rock and earth	3,080
224	Culebra	July 23	Rock and earth	2,580
257	Pedro Miguel	July 15	Rock and earth	2,520
264	Pedro Miguel	July 17	Earth	1,850
258	Miraflores	July 31	Rock and earth	2,170
151	Miraflores	July 10	Rock and earth	1,250

NOTE—Shovels in the one-hundred class are 70-ton shovels with buckets of a capacity of 2½ cubic yards. Shovels in the two-hundred class are 95-ton shovels with dippers of a capacity of 5 cubic yards. Shovels in the fifty-class are 45 ton shovels with dippers of a capacity of 1¾ cubic yards. These shovels are under steam for eight hours per day, but are not actually worked during this entire period, time being lost by the necessity of moving the shovel forward, blasting stone too big for the shovel to handle, keeping the shovel supplied with cars, etc.

Dedication of Chapel at Empire.

The Commission chapel for Protestants at Empire will be dedicated next Sunday. The exercises will begin with the Sunday school rally at 10 o'clock in the morning, when W. W. Warwick will make an address. At present the membership of the school is about seventy, and it is believed this will be increased appreciably by the opening of the new chapel.

At 2.30 o'clock in the afternoon the exercises will consist of addresses by Judges H. A. Gudger and T. E. Brown, Messrs. W. W. Warwick, A. Bruce Minear and H. L. Stuntz. The Lotus Glee Club will assist in the services and Mrs. Faure will sing a solo. The sermon of dedication will be preached in the evening at 7.45 o'clock by the Rev. J. H. Sobey, Commission chaplain.

Supplies For Canal Work.

The steamship *Ole Bull* arrived from Baltimore on August 18, and is unloading a cargo for the Commission at the docks in Cristobal. The cargo includes: 681 bundles and 4,010 pieces of galvanized pipe, 45,000 pounds lime, 45,000 pounds dynamite, 2,964 steel beams, bars and plates, 1,550 pieces and 150 bundles of castings, 21,869 pieces vitrified sewer pipe, 2,832 packages boiler tubes, 353 steel rails, 1,250 bundles angle bars, assorted lot of furniture, crockery, pipe fittings.

Forty-five thousand pounds of tie plates for the Commission were brought by the *Ellis* which arrived from New Orleans on August 20.

The *Eastfields* arrived at Cristobal on August 21, with 1,073 piles for the Commission

A cargo of dynamite and rails is being brought by the *Kiora*.

Rainfall, August 1 to 22, 1908, Inclusive

(MIDNIGHT TO MIDNIGHT.)

Stations.	Maximum in one day.	Total.
Atlantic Division—		
Cristobal	2.28	14.56
Brazos Brook	3.50	15 88
Gatun	3.64	14.70
Bohio	8.82	19.36
Central Division—		
Tabernilla	3 64	9.68
San Pablo	2.98	9.07
Bas Obispo	2.15	6.81
Gamboa	1.60	8 95
Empire	2.17	5.22
Camacho	2.36	5.80
Culebra	1.56	5.28
Rio Grande	1.58	5.17
Pacific Division—		
Pedro Miguel	1 59	5.54
La Boca	3.43	8.13
Ancon	3.10	8.26
Upper Chagres.		
Alhajuela	3.39	14.83

Flood Stages in the Chagres.

Maximum height of Chagres above low water for the week ending midnight, August 22, 1908:

	STATIONS.				
	Vigia.	Alhajuela.	Gamboa.	Bohio.	Gatun.
Height of low water above mean sea level, feet.	129	92	46	.00	.00
Maximum height above low water:					
Sunday, Aug. 16	....	2.50	3.88	11.60	5.60
Monday, Aug. 17	....	9.15	13.40	16.60	7.00
Tuesday, Aug. 18	....	2.40	6.95	14.30	7.30
Wedn'sday, Aug. 19	....	4.95	8.00	15.60	7.35
Thursday, Aug. 20	.....	2.05	3.30	11.75	6.50
Friday, Aug. 21	0.98	2.00	2.78	8.75	4.90
Saturday, Aug. 22	0.80	1.61	2.75	7.00	3.10

LOST—Lady's 14-k. solid gold watch, Elgin movement, hunting case, engraved on front case "D.E.H.", attached to a fob made of Panama money, mostly 5-cent pieces. If found please notify Mrs. J. Frank Houston, Gatun, C. Z., and receive reward.

ISTHMIAN MECHANICAL PLANTS.

V

Cristobal Marine Shop and Dry Dock.

A self-propelling lighter and floating crane, the *Alexandre La Valley*, is in the dry dock at Cristobal, undergoing extensive repairs. She was put in commission 17 years ago, and this is the first time she has been sent to dry dock. In fact, the old French dock was not large enough to accommodate her. One hundred and sixty new plates are being put on the hull, a new Scotch marine boiler, 12 feet by 14 feet, is to be installed, and both the propelling engines are undergoing repairs. One of the three cranes has been taken out and the two remaining cranes with their engines are being repaired. The larger crane is capable of lifting 40 tons. The lighter is used principally in unloading cargo, and in this work she has had a record of unmixed usefulness since the American occupation. She will be in dry dock about three months.

In the dock with the *Alexandre La Valley* is the old French self-propelling hopper barge (clapet) No. 14, undergoing a general overhauling. This barge has been serving the old French ladder dredges in Limon Bay the last 14 months without docking or relief of any kind.

In the channel at the entrance to the dry dock, the last of the three 20-inch suction dredges, brought here from the States knocked down, is being put together. In the course of a month it will be ready for service. The first shipment of these dredges arrived December 15, 1907.

On the bank of the old French Canal from Colon to Gatun, near where the dredge is being built, the riveters are fixing the last plates on the hull of a 100-ton stern-wheel steamer to be used in the rock and sand service between Colon and Gatun. It was brought to the Isthmus knocked down, and will soon be ready for launching.

Piled up alongside the docks is a quantity of pipe made in the shop for use with the 20-inch suction dredges. Nearby is a pontoon recently made, and a pile of stay bolts just turned out for the trestles at Gatun dam. In the machine shop a tail shaft has just been completed for the old French clapet, No. 14, and a propeller has just been bored to fit it. An engine is being rebuilt for the tug *Grace*, and the engine of clapet No. 2 is being overhauled. A 14-inch shaft is being made for the top tumbler of one of the old French dredges.

These examples of the work done at the Cristobal Marine Shop and Dry Dock are not comprehensive, but they give a fair idea of the class and amount of work turned out by the 90 mechanics and 250 helpers. The plant is an adjunct of the Atlantic Division, and is under the immediate supervision of Assistant Engineer R. B. Smith, who reports to the resident engineer at Gatun. In the fiscal year ended June 30, the amount of money paid for labor at these shops was $298,067.01, and the material drawn from the dry dock storehouse was valued at $111,142.28. This latter amount includes the cost of supplies for operating the dredges in the Atlantic Division.

In the report of the Isthmian Canal Commission for the year ending December 1, 1905, the marine shops at Cristobal are referred to:

"A small machine shop is being erected near the old dry dock, to be equipped with tools necessary for hull work and light machine work generally, the machinery for which has all been ordered."

During the year 1906 the sheds, in which some old French machinery had been assembled for emergency work, were cleared away and a machine shop, blacksmith shop, and wood shop, with concrete floor, wood frame, and corrugated iron roof was erected. Some American and old French machinery was installed. While the building was in progress the plant was busy making repairs to floating equipment. With the increase of work the shop has been enlarged and additions have been made to its equipment, while more machinery is now on order.

The dry dock had an available length of 190 feet, a width of 32 feet between the gate walls, and at high tide had 16 feet of water over the sills. It was rebuilt in February, 1908, and will now take a vessel 290 feet long, of 50-foot beam, and 15-foot draft. Reaching over the dock and running its full length, is a Gantry crane of 15 tons capacity.

The machine shop is 42 feet by 130 feet, and the machinery is arranged along one side, leaving the other side vacant for the machines recently ordered. In this shop are one 96-inch vertical boring mill; three lathes, 36-inch by 24-foot, 26-inch by 12-foot, and 32-inch by 16-foot, respectively; one 36-inch by 8-foot planer; one 6-inch pipe machine; one 2-inch pipe machine; one emery grinder; one 10-foot radial drill; one 28-inch drill and one French shear. Two jib cranes do the heavy lifting, and light lifts are made with three portable cranes. In addition to these machines there have been ordered and will be installed presently, one slotter; one 30-inch by 10-inch by 18-inch Universal milling machine; one stay bolt cutter to cut and tap threads from ⅜-inch to 1½ inches; one cold saw; one power hack saw; one pair of flanging clamps to handle 12-foot plates; one 100-ton hydraulic press; one 36-foot by 24-foot engine lathe; one 6-foot by 14-foot engine lathe; one Universal grinding machine; two small upright drills; one 12-inch by 18-inch by 54-inch Universal radial drill, and one 20-inch by 14-foot lathe.

Back of the machine shop, in a building 50 feet by 100 feet, is the blacksmith shop, in which there are ten fires, two jib cranes, one bolt header, and one 1500-pound hammer. A 2500-pound hammer has been ordered.

A boiler shop, 40 feet by 100 feet, adjoins the blacksmith shop. It is equipped with two jib cranes, one 14-foot rolls, one metal-splitting shear, and two punch and shears. In the tool room, which opens into the machine and boiler shops, are an 18-inch by 9-foot lathe, and a twist drill grinder.

Back of the boiler shop and blacksmith shop is the power house. Two 150-horse power boilers supply steam for a compound French engine. An air compressor, with a capacity of 1,200 cubic feet of free air a minute, furnishes air for the pneumatic tools at the dry dock, in the shops, and in the yards. There are also two 20-inch pumps, direct connected to two duplex upright engines, to empty the dry dock. One 5-k. w. dynamo supplies such electric current as is needed.

In the wood shop, which is the last in the series of shop buildings, are one circular saw, one band saw, and one lathe. A small warehouse is stocked with parts for the old French machinery in use in the Atlantic Division, and with some parts for the new suction dredges.

An addition, projected but not yet decided upon, is a shipways on which barges and other small vessels may be hauled up for light repairs.

Examination for Clerk.

A local examination for the position of clerk in the service of the Isthmian Canal Commission will be held Sunday, September 13, 1908. The exact hour and place of the examination will be announced later. Copies of the Manual of Examinations, containing all necessary information and sample questions, and copies of the prescribed application form, will be furnished upon written request by the Secretary of the Isthmian Civil Service Board, Office of the Chairman, Culebra, Canal Zone.

The examination is open to citizens of the United States between the ages of 20 and 45 years. Persons intending to enter the examination should file their applications at once, in order that requisition may be made for sufficient papers and other necessary arrangements completed by the Board of Examiners.

Examination for Examiner of Accounts.

The Isthmian Civil Service Board will hold at Culebra, September 3 and 4, 1908, an examination for the position of Examiner of Accounts under the Interstate Commerce Commission, at salaries ranging from $1,800 to $3,000 per annum, and traveling expenses. This examination is open to citizens of the United States who have had high grade training and experience in railroad accounting. An advertisement containing a description of the examination and other information of interest to applicants has been posted in every post-office in the Canal Zone.

The printed application form can be had upon application to the Secretary of the Isthmian Civil Service Board, office of the Chairman, Culebra, Canal Zone.

Examination for Physician.

A local examination for the position of physician in the service of the Isthmian Canal Commission, entrance salary $1,800 per annum, will be held October 14, 1908, the exact hour and place of the examination to be announced later. The Manual of Examinations, containing all necessary information and Application Form, may be obtained from the Secretary of the Isthmian Civil Service Board, office of the Chairman, Culebra, Canal Zone.

Dog Muzzling Ordinance Approved.

The ordinance providing for the muzzling of dogs in the Canal Zone, enacted by the Isthmian Canal Commission on July 18, 1908, and published in full in THE CANAL RECORD of August 5, was approved by the Secretary of War on August 12, and became effective on that date.

A Mrs. Cameron of Allegheny, Pa., would like to hear from her husband who left for Panama two years ago. Anyone who knows of his whereabouts should communicate with Mrs. Cameron through Capt. S. J. Brauff, Department of Public Safety, Bureau of Police, Allegheny, Pa.

CENSUS OF CANAL ZONE.

Total Population Placed at 50,003.

Under the authority of a resolution of the Isthmian Canal Commission, adopted March 27, 1907, an enumeration of the population of the Canal Zone was begun on March 3, last, and completed on June 23. According to this census the total population of the Zone is 50,003. Of this number, 24,963 are employed either by the Isthmian Canal Commission or the Panama Railroad Company. Of the total population 14,635 are white, 34,785 are negroes, and 583 are Chinese. Of the total white population, 6,863 persons are from the United States, and of these 5,213 are males and 1,650 females; 2,030 married men and 1,048 married women; 2,713 single men and 172 single women; 451 children—232 boys and 219 girls—between the ages of 6 and 16 years. There are also from the United States 73 colored persons, 57 males and 16 females. No distinction was made between negroes and mulattoes, and it is probable that a considerable number of Indians in the rural districts were reported as black.

In explanation of the figures of the enumeration, Mr. George A. Ninas, chief clerk of the Executive Office, who was in charge of the census, says in his report:

"The only basis by which the accuracy of the census may be judged is the number of persons employed by the Isthmian Canal Commission and the Panama Railroad Company. It is not possible, however, to obtain the exact number of persons in the service of the Commission or the railroad at a given time, due to the fact that there are frequent duplications of names on the rolls, resulting from the transfer of large numbers of laborers from one division or location to another. * * *

"There were on the rolls of the Commission on February 29, 1908, 34,757 names, and on the rolls of the railroad company there were 6,259 names, a total of 41,016. The force report of the Department of Labor, Quarters and Subsistence shows that on February 29 there were actually at work for the Commission 25,828 persons, including 121 employed at Porto Bello, in the Republic of Panama. The actual number in the Zone and Panama and Colon would, therefore, be 25,707. On February 26, 6,742 persons were employed by the Panama Railroad Company. The total force at work for the Commission and the railroad company was, therefore, 32,449. It is estimated that the actual working force represents 90 per cent of the persons employed by the Commission and the railroad company, as the sick rate for the month of March, 1908, the month during which the census in the towns and villages was taken, is reported by the Chief Sanitary Officer as 18.23 per thousand—less than 2 per cent—leaving something over 8 per cent of the employes absent from work for other causes than sickness. The total number of employes of the Isthmian Canal Commission and the Panama Railroad Company during the month of March in the following comparisons will therefore be considered as 36,034.

"The census shows that there are in the Canal Zone 24,963 employes of the Commission and the railroad company—a difference of 11,091. There were in Government quarters in the Zone on February 29, 20,362 employes of the Commission, and the railroad company furnished quarters in the Zone to 2,402 of its employes; a total of 22,764. The Panama Railroad Company has employed in the city of Colon 1,053 persons, and it furnishes quarters in that city to only 305 employes. In the city of Panama it has 1,051 persons employed, to 145 of whom it furnishes quarters in Panama.

"In the Zone the railroad has employed 2,313 persons, largely engaged in maintenance of way and construction work. It has employed at Cristobal 1,842 persons; quarters for a part of this number are evidently included in the 2,402 persons whom it quarters in the Zone. Of the persons employed by the railroad at Cristobal, 1,497 are silver laborers, a large part of whom undoubtedly reside in the city of Colon. The railroad company has therefore employed in the cities of Panama and Colon 2,104 persons. It actually furnishes quarters in those cities to 450 persons, and it employs in Cristobal 1,842 persons, to only a small number of whom it furnishes quarters. Deducting from the difference between the actual number of employes of the Commission and railroad company and the number enumerated (11,091) the 2,404 persons actually employed by the railroad company in the cities of Colon and Panama, would leave the difference between the census returns and the actual number of employes 8,987. From this number should be deducted a portion of the 1,842 employes of the railroad company in Cristobal, say, 1,000, leaving the difference between the actual number of employes and the number shown by the census approximately 8,000.

"A part of this difference can be accounted for by employes of the Commission who reside in the cities of Panama and Colon, and the balance by the reluctance of some employes (especially West Indian laborers) not living in Government quarters to tell the enumerators that they were employed by the Commission.

"The total number of Panamans in the Zone is shown as 11,407. Of this total 4,973, or 44.54 per cent, are children under 16 years of age. This large population of children is accounted for by two causes: First, a considerable population of West Indian negroes has resided on the Isthmus since the inception of canal construction work by the first French Canal Company. Some have never returned to the islands whence they came, and have not taken the necessary steps to have their children registered as subjects or citizens of the countries to which they (the parents) owe allegiance. In taking the census these children have been treated as Panamans. This view seems to be confirmed by the statistics of Jamaicans. Of the total in the Zone—8,410—but 1,120 are under the age of 16 years; that is, only one out of every 7.6 Jamaicans is under the age of 16 years. This would seem to be unusual, as 2,194 adult Jamaican women were found in the Canal Zone. In discussing the second cause for the large number of Panaman children it is necessary to call attention to the apparently large number of Colombians found in the Zone (2,271) and the small number of Colombian children (178). Of the total number of Colombians but 422 have been on the Isthmus less than four years; in other words of the 2,271 Colombians in the Zone 1,849 were on the Isthmus at the time of the Independence of Panama; and they would probably be recognized as Panaman citizens. They have, it seems, presumed that they were Colombians because they have never taken any action to become citizens of Panama; their children, however, born on the Isthmus, they consider Panamans and so reported them to the census enumerators.

"The total cost of the work, including the wages of enumerators, the cost of stationery and printing, the cost of tabulation, and the cost of supervision in the Executive Office, was $3,936.36, an average cost per person enumerated of 7.87 cents. No data are available as to the cost per capita of census taken elsewhere, but it is believed that the cost of the census in the Zone has not been excessive."

The population of the Zone by towns is appended:

Population of the Canal Zone by Towns, Race and Sex, 1908.

Towns.	White.			Black.			Yellow.			Total.
	Male.	Fem'le.	Total.	Male.	Fem'le.	Total.	M.	F.	Tot'l.	
Ahorca Lagarto	1	2	3	38	19	57	1	1	2	62
Ancon	622	254	876	614	96	710	4	....	4	1,590
Bailamonos	....	....	....	64	46	110	1	....	1	111
Bas Obispo	459	72	531	1,003	183	1,186	24	3	27	1,744
Bohio	32	37	69	275	172	447	8	2	10	526
Camp Elliott	253	8	261	....	4	4	....	....	....	265
Corozal	350	29	379	256	24	280	1	1	2	661
Cristobal	1,200	216	1,416	1,682	452	2,134	8	....	8	3,558
Culebra	1,332	412	1,744	2,639	1,028	3,667	103	2	105	5,516
Culebra Island	17	....	17	21	1	22	....	....	....	39
East La Boca	380	40	420	148	70	218	1	....	1	639
Empire	1,319	340	1,659	2,341	1,047	3,388	84	8	92	5,139
Flamenco Island	34	1	35	35	....	35	....	....	....	70
Frijoles	4	1	5	541	237	778	1	....	1	784
Gatun	892	140	1,032	2,005	322	2,327	32	....	32	3,391
Gorgona	818	247	1,065	1,177	469	1,646	38	1	39	2,750
La Boca	155	43	198	535	151	686	21	....	21	905
Las Cascadas	807	150	957	951	473	1,424	44	....	44	2,425
Lion Hill	2	2	4	35	20	55	1	....	1	60
Mamei	172	17	189	87	60	147	1	....	1	337
Matachin	635	63	698	868	455	1,323	20	1	21	2,042
Mindi	11	....	11	40	28	68	....	....	....	79
Miraflores	214	8	222	187	42	229	5	....	5	456
Mount Hope	18	11	29	327	260	587	9	1	10	626
Naos Island	1	1	2	3	2	5	7	....	7	14
Paraiso	446	109	555	1,407	615	2,022	42	3	45	2,622
Pedro Miguel	728	87	815	618	175	793	15	....	15	1,623
San Pablo	494	27	521	1,074	262	1,336	24	....	24	1,881
Tabernilla	424	47	471	1,141	428	1,569	39	....	39	2,079
Rural	257	194	451	4,605	2,927	7,532	26	....	26	8,008
Total	12,077	2,558	14,635	24,717	10,068	34,785	560	23	583	50,003

ZONE POPULATION.

Its Division by Nationalities.

The population according to nationality is shown in the following table. The term "America" is used to indicate the United States and its outlying possessions in the western continent. "Continental United States" is the term applied to the United States without Alaska, Porto Rico, or Hawaii. "Great Britain" is used to include the United Kingdom and the British Empire, and "Holland" to indicate the Netherlands and its colonies. From this table it will be seen that of the 24,963 persons employed by the Isthmian Canal Commission and the Panama Railroad Company only 4,655 are from the United States while 11,925 are British subjects. The great majority of these British citizens are from the West Indies and are in the common laborer class. The French subjects employed on the Canal and railroad are also largely common laborers and the Spaniards belong almost exclusively to the "European labor" class.

Population of the Canal Zone by Nationality, 1908.

Countries.	Population.	Employed by I. C. C. and P. R. R.	Countries.	Population.	Employed by I. C. C. and P. R. R.	Countries.	Population.	Employed by I. C. C. and P. R. R.
America—			Cat Island	2	2	Ecuador	26	8
Continental			Watling's Island	1	1	Argentina	4	2
United States	6,937	4,655	Turks Island	6	6	Paragua	1	1
Porto Rico	14	5	Bermuda	7	6	Brazil	3	2
Great Britain—			British Guiana	147	91	Chile	18	4
England	199	136	Br. Honduras	6	5	Liberia	2	1
Scotland	62	53	France—			Egypt	6	....
Isle of Man	1	1	France	159	87	Tunis	1	1
Ireland	34	22	Martinique	2,397	1,676	Turkey	37	31
Canada	36	29	Guadeloupe	521	394	Syria	4	....
Australia	18	17	St. Martin	4	2	Bulgaria	4	4
Gibraltar	3	3	French Guiana	1	1	Roumania	1	1
New Zealand	2	2	Denmark—			Greece	331	316
Tasmania	1	1	Denmark	14	9	Italy	810	762
Cyprus	1	1	St. Thomas	56	20	Spain—		
Ceylon	2	2	Holland—			Spain	4,370	3,800
India	71	52	Holland	12	6	Canary Islands	1	1
Sierra Leon	1	1	Curacao	10	8	Portugal	107	106
Jamaica	8,418	3,535	Dutch Guiana	1	1	Austria-Hungary—		
Barbados	6,483	5,625	Aruba	3	3	Austria	35	28
Antigua	634	533	St. Martin	5	2	Hungary	7	2
St. Kitts	81	70	Cuba	77	20	Bohemia	5	5
Nevis	20	16	Hayti	25	18	Switzerland	9	8
Dominica	65	40	Santo Domingo	1	1	Belgium	2	2
Montserrat	314	254	Mexico	35	18	Germany	54	42
St. Vincent	181	150	Guatemala	8	2	Sweden	12	9
Tobago	6	3	Honduras	8	4	Norway	9	8
Tortola	1	1	Salvador	8	4	Russia—		
Trinidad	410	246	Nicaragua	44	12	Russia	17	11
Grenada	561	344	Costa Rica	79	34	Finland	4	4
St. Lucia	1,273	452	Panama	11,411	535	Poland	1	1
New Providence	28	24	Colombia—			Luxemburg	1	....
Long Island	8	7	Colombia	2,271	296	China	573	1
Fortune Island	185	181	San Andrews Island	2	1	Japan	5	1
Inagua	6	6				Philippine Islands	2	1
Great Bahama	1	1	Venezuela	59	30			
Crooked Island	6	5	Peru	98	32	Totals	50,003	24,296

First Year of Commission Clubhouses.

The four clubhouses established by the Commission for the use of the employes of the Canal demonstrated their usefulness during the first year of their existence. They were all in operation during the fiscal year which ended June 30, last, and the statistics of their operation show that the demands upon them were far in excess of what had been anticipated. They were planned to accommodate a membership of 250 to 300 each, but the total number of members in all four of them has varied from 1,327 to 1,727, more than 3,000 different employes availing themselves of membership privileges during the year and contributing an average of $4,480.87 per month toward operating expenses. The membership has averaged 65 per cent of all white "gold" employes living in the four towns in which the clubhouses are situated. In fact, the clubhouses have served nearly the entire white population of these towns.

A conservative estimate of the attendance, based on actual counts during periods of seven consecutive days, shows the daily average for the year of 1,208 persons. During the year 226 entertainments were provided, 131 by local talent, at which the total attendance was 23,550, and 95 by lyceum and vaudeville talent imported from the States, at which the attendance aggregated 19,766. There were over 64,000 bowling games recorded and over 147,000 of pool and billiards. The attendance in the gymnasiums and upon indoor games has exceeded 9,000. The average number of men voluntarily serving on committees was 175; about 880 calls were made on members sick in hospitals; the attendance upon Sunday meetings and concerts was nearly 8,000, and 129 men engaged in weekly bible discussions. Letter writing facilities were used to the extent of 5,000 letters per month. The gross receipts from soda fountains, with ice cream and bottled soft drinks, were $15,399.02.

In November, 1907, the Commission installed a library of about 600 volumes in each clubhouse, and to these additions have been made during the past few months. During the eight months of the fiscal year in which the libraries were in use 736 members withdrew over 9,000 books. No charges are made for the use of the books, their return being insured by a small deposit. They are also read largely by the families of members. Each clubhouse contains a reading room with 100 current publications. A boys' department has been organized in each of the clubhouses by the secretaries of the Young Men's Christian Association, under whose supervision the clubhouses are managed, to which boys over ten years of age are admitted. Games and outings are conducted on certain days under the supervision of the secretary.

Health of the Zone.

The health of the Canal Zone, as recorded in the statistics of the Department of Sanitation, showed a marked improvement during the fiscal year ending June 30 last, as compared with similar conditions during the preceding fiscal year.

The total force of employes, whites and blacks, during the last fiscal year averaged 43,057, and among these there were 789 deaths, a death rate of 18.32 per thousand. During the previous year, with an average of 32,324 employes, there were 1,272 deaths, a death rate of 39.41 per thousand, or more than double that of the year just closed. The total white force during the last fiscal year averaged 12,058 men, with a death rate of 15.34, while in the previous year with an average force of 7,727 it was 15.93. About one-third of the deaths among the whites were due to accidents and violence of various kinds, reducing the death rate from disease to about 10 per thousand. Of the 12,058 white employes, 5,035 were Americans and among these there were 41 deaths, 27 from disease and 14 from other causes, making the death rate from disease among them 5.35 per thousand. The families of white employes averaged in numbers 2,005, and among them there were 18 deaths, a death rate of only 8.97 per thousand.

The number of negro employes averaged 30,999, and the death rate among them was 19.48 per thousand, or less than half that of the previous year, which was 45.48 per thousand. This was due, in the opinion of the Chief Sanitary Officer, to the subsidence of the epidemic of pneumonia which prevailed during the previous year and to improvement in housing, feeding, and general sanitary conditions.

There was during the year a marked decrease in the number of cases of dysentery, pneumonia, typhoid fever, and malaria. With an average force 10,000 greater than during the previous year, the number of deaths from dysentery dropped from 56 to 35, those from pneumonia from 479 to 175, those from malaria from 211 to 111, and those from typhoid fever from 93 to 43. Deaths from pneumonia and typhoid fever occurred almost entirely among the blacks. As malaria is the disease against which sanitary efforts are at present principally directed, the decrease in death rate from that disease is considered especially satisfactory.

The number of deaths from violence was 157, or about one-fifth of the whole number from all causes. It is regarded as remarkable that in a force of 43,000 men there should have been admitted to the hospitals only 130 cases of alcoholism. There was no case of plague during the year, and there has been no case of yellow fever since May, 1906.

The Panama Railroad Company has placed an order with the American Car and Foundry Company for 200 box cars of 80,000 pounds capacity each.

Work is being done preparatory to transferring the stores and duties of the Division of Material and Supplies to the Quartermaster's Department on September 1. It is not anticipated that any changes in the personnel will be made at once.

SOCAL LIFE OF THE ZONE.

Women's Clubs and Other Features.

Dr. William Deeks, of Ancon Hospital, spoke to the Ancon Woman's Club at its meeting on August 19, on the effect of home training on the physical, mental, and moral development of children. After the address he answered a number of questions, and a general discussion resulted.

Fifty-one dollars was made at the whist party given recently for the benefit of the library fund. The library committee reported that a general meeting will be held in the near future to further interest in the work of forming a library association.

At its next regular meeting the club will make nominations for officers for the coming year. A program will be presented under the auspices of the philanthropy department.

The Empire Woman's Club will hold its first meeting after the summer vacation at the Commission Clubhouse on September 1, at 3 o'clock in the afternoon. Every member is urged to be present, so that the year's work may start with every one interested and knowing what is going on.

Although only a business session, the meeting of Pedro Miguel Woman's Club, held August 19, turned out to be unusually interesting. The members talked over plans for an energetic and useful season, and, if the enthusiasm displayed at the meeting can be spread among all the women of Pedro Miguel, the good service the club has been doing in the community will be bettered greatly within the next few months. At the dance held recently $29.50 was realized.

The meeting of the Las Cascadas Woman's Club, August 20, was given over to a talk on club life by Mrs. Thomas E. Brown, of Cristobal. Mrs. Brown's remarks were interesting, and would be of great assistance if the Zone clubs had the material for doing the work she outlined. Mrs. H. G. E. Schreiber of Los Angeles, Calif., sang very sweetly.

A number of the young ladies of Ancon hospital and young men of Ancon enjoyed a sail on the *Petite Louise*, the evening of August 19.

Ancon Library.

The movement that has been under way for several months to establish a library at Ancon has made gratifying progress and has reached a stage at which it is desirable to create a formal organization for its control and direction. It is the general experience that such an institution as is contemplated is best managed by a library association. For the purpose of forming such an Association a public meeting will be held at Hotel Tivoli on Friday evening, August 28, at 8 o'clock, to which all public spirited residents of Ancon and vicinity are cordially invited.

Jo C. S. Blackburn,
W. C. Gorgas,
Joseph Bucklin Bishop,
H. R. Carter,
H. D. Reed,
Tom M. Cooke,
John S. Phillips,
T. C. Lyster,
W. B. Ruggles,
J. St. Clair Hunt,
S. B. Williamson,
Henry Ropes Trask,
H. B. Bryan,
C. C. McCulloch,
Ancon Woman's Club.

Ancon, August 24, 1908.

Card of Thanks.

My children and I desire to express our sincere thanks to our friends and neighbors for their kind favors and sympathy shown us in the bereavement suffered in the loss of a dearly beloved wife and mother, Rose M. McCord, who died on August 19, 1908. We also wish to thank the Isthmian Canal Commission officials for the kind services rendered.

J. E. McCord.

Tabernilla, C. Z., August 23, 1908.

PERSONAL.

Mr. L. K. Rourke, Assistant Division Engineer of the Central Division, left for the States August 25, on a 59 days' leave of absence.

Mr. A. B. Nichols, office engineer, with Mrs. Nichols and Miss Nichols, sailed for the States on August 25, for a vacation of six weeks.

Mr. Edward Schildhauer, electrical and mechanical engineer and Mrs. Schildhauer, left for the States on August 25. Before returning to the Isthmus Mr. Schildhauer will investigate the mechanism of locks in the United States and Europe.

Mr. Earl J. Banta, mechanical engineer, has returned from his leave of absence in the States.

Mr. David C. O'Conner, Superintendent of Schools, and Mrs. O'Conner and family, left for their home in Nebraska on the *Finance*, August 20.

Hon. Le Gage Pratt, a Representative in Congress from New Jersey, arrived on the *Esperanza* on August 18 and left for the States on August 25.

COMMISSION CLUBHOUSES.

Activities of the Young Men's Christian Association.

The Lotus Glee Club, which will arrive on the *Advance* about August 28, will give entertainments as follows:

Cristobal, Saturday, August 29.
Empire, Sunday, August 30, at 2.30 p.m.
Culebra, Sunday, August 30, evening.
Culebra, Tuesday, September 1.
Gorgona, Wednesday, September 2.
Empire, Thursday, September 3.

On Sunday, August 30, the afternoon appearance will be at the dedication of the Commission chapel in Empire, and the evening recital will be given at the Culebra Clubhouse in connection with an address by Judge Thomas H. Brown, Jr.

CRISTOBAL.

The boys' department has arranged for a dual meet with the boys' department of the Empire Y. M. C. A. on Wednesday, the 26th. There will be indoor track work, relay races, etc., a game of indoor baseball and a game of bowling.

Mr. H. L. Stuntz, local auditor of the Panama railroad, has been appointed by the International Committee of the Y. M. C. A. as a member of the Cristobal Y. M. C. A. executive council.

The barber shop has been recently equipped with hot water, and with all appliances for shampooing and massage.

Twenty-five of the latest books have been added to the circulating library during the past week.

EMPIRE.

Great interest is being shown by the little fellows who are members of the Y. M. C. A. in their Monday, Wednesday, and Friday afternoons in the gymnasium. They are having great times especially at basketball and indoor baseball.

An entirely new lot of men are using the gymnasium at this time and an indoor baseball team has been formed among them. They are also becoming proficient in basketball and are looking for a game with any Y. M. C. A. amateur team. Gorgona is expected to play here next Saturday night.

LOST—Sunday night, August 16, Mr. Dan St. Clair of Gatun lost a purse. The finder may have the money that was in the purse if he will return the purse and the receipt that was in it to Mr. St. Clair.

PROFIT IN SCRAP METALS.

Customs Duties Will be Refunded on Sales Made After June 30, 1908.

The practice of sending old French scrap iron to the States for sale was discontinued in March, because the market prices at that time were not, and since then have not been, high enough to make it profitable for the Commission or the Government to sell. A distinction is made between profit to the Commission and the Government, because the duty imposed on some shipments of iron left little or no profit for the Commission, and yet was a source of revenue to the Government. A provision of the Sundry Civil Act of May 27, 1908, will make it possible for the Commission to sell junk at a profit as soon as the market in the States advances, as it virtually removes the duty by directing that the amount collected be turned over to the Commission. The law says:

> SEC. 5. All funds that hereafter may be derived from customs duties collected upon property of the United States imported from the Canal Zone are hereby reappropriated for the construction of the Isthmian Canal and may be expended under any of the classified appropriations for the department of construction and engineering.
>
> SEC. 6. All funds realized during the fiscal year nineteen hundred and nine by the Isthmian Canal Commission from the performance of services by the Commission, or from the sale of materials and supplies upon the Isthmus under the custody and control of the Commission, are hereby reappropriated for expenditure under any of the foregoing classified appropriatons for the department of construction and engineering, and a full and separate report in detail of all transactions hereunder shall be made to Congress.

Much of the scrap that can be seen piled up along the line of the Canal is of little value, because it has been robbed of its brass, copper and cast iron, and only sheet and wrought iron, steel and machinery remain. The brass, copper and cast iron are now used at Gorgona foundry, and form by far the most profitable source of revenue from French scrap.

From the beginning of the American occupation to July 31 there had been issued to the foundry and sold, the following amounts of scrap:

	Pounds.
Issued to foundry:	
Copper and brass	361,571
Cast iron	7,623,125
Sold in United States:	
Cast iron	12,031,080
Wrought iron	405,850
Riveted steel	1,577,000
Sold to Panama Railroad Company:	
Scrap of all kinds	22,374,000

From a book-keeping point of view it has not paid the Commission recently to sell scrap. It has been figured out carefully that of the price received, even when the scrap sold for $11.86 per net ton, 46 per cent went to the Panama Railroad Company, 23 per cent to pay customs duties, and 1 per cent for handling in New York, leaving only 30 per cent of the net price as the Commission's share for handling and furnishing the material. Yet it will be seen that the Government has profited by these sales, for the customs duties are direct revenues, and the freight paid the Panama Railroad Company is indirectly paid into the Treasury.

The United Fruit Company's second large passenger ship, *Parismina*, has been put in service and will sail on September 8, from Colon for New Orleans, via Port Limon. This is a sister ship to the *Cartago*, as is also the *Heridia*, which will be put in commission sometime in September. These ships have been built especially for tropical travel.

OFFICIAL CIRCULARS.

Correction.

Official Circular No. 183F, under date of August 12, 1908, published in THE CANAL RECORD of last week, is amended by the substitution of "Ancon Hospital Grounds" in place of "Ancon," in the seventh paragraph, which should read as follows:

The following territories are excluded from the above provisions, and the Department of Sanitation will continue to do the work as heretofore: Mount Hope, Cristobal, Colon, Panama, Ancon Hospital Grounds, and all cemeteries.

Requests for Work.

CIRCULAR NO. 197.

1. Effective August 25: Requests for work to be performed, made between departments or divisions of the Isthmian Canal Commission or between the Isthmian Canal Commission and Panama Railroad Company, covering manufacture, repairs, alterations and special services which can not conveniently be executed by the department making the request, or which are specific functions of the department on which the request is made, will be submitted on form No. 159 C. E., a copy of which is attached hereto.

2. This form is intended to obviate the use of letters for preferring such requests or recommendations, covering not only work to be done by another department or division, but also requests for special authority where the work is to be done by the department or division making the request.

3. When the estimated cost of the job does not exceed $50 or when the work to be performed is requested by the Sanitary Department as authorized in circular No, 183F, the request may be made direct without the approval of the Chairman; two copies to be sent direct and one to this office for file.

4. When the estimated cost exceeds $50 the expenditure must be authorized by the Chairman, and four copies of the requisition forwarded to this office. For request on the P. R. R., forward eight copies.

5. Estimates will be prepared and charges rendered in accordance with the directions contained in circular No. 169 covering percentages of surcharges.

6. These requests must be numbered consecutively beginning with 1, in the upper right-hand corner, and the following prefixes should be used to distinguish the departments and divisions indicated:

Chairman and Chief Engineer's Office	C. E.-1, C. E.-2, etc.
Atlantic Division	A.-1
Central Division	C.-1
Pacific Division	P.-1
Motive Power and Machinery	M. P. M.-1
Meteorology and River Hydraulics	M. R. H.-1
Civil Administration	C. A.-1
Sanitary Department	San.-1
Quartermaster's Department	Q.-1
Subsistence Department	Sub-1
Disbursing Office	D. O -1
Examiner of Accounts	Ex.-1
Law Department	L.-1

Correspondence relating to any particular requisition should in each instance give the number of same.

7. All the requirements indicated on the form must be complied with when practicable.

8. These forms may be obtained from the Stationer and Printer. Please requisition a supply immediately.

9. The Assistant to the Chairman is authcrized to sign such requests as the Chairman may direct.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

Culebra, August 18, 1908.

Requisitions for Emergency Work.

CIRCULAR NO. 197A.

1. Hereafter the usual monthly requisition on the Mechanical Division and Panama Railroad Company covering emergency work to be performed will be made on form 159 C. E.

2. Circular No. 111 is hereby revoked and requests for electric lights will be handled in accordance with Circular No. 197.

GEO. W. GOETHALS,
Chairman.

Culebra, C. Z., August 21, 1908.

The following ships arrived at and departed from the port of Ancon during the week ending Friday, August 21, 1908:

Arrivals—August 15, *Barracouta* from Central America. August 20, *Milwaukee*, U. S. S. from Honolulu. August 21, *Quito* from Buenaventura. August 21, *Peru* from San Francisco.

Departures—August 16, *Peru*, P. S. N. Co. to Valparaiso. August 16, *Ecuador*, to Buenaventura. August 21, *City of Para* to San Francisco.

UNCLAIMED PACKAGES.

The following is a list of packages that have been forwarded from New York to Isthmian Canal Commission and Panama railroad employes, and that are waiting to be claimed at the freight house at Colon. The owners of these packages will have to make application for free customs entry in connection with Circular No. 85, or in the alternative, pay duty to the Panama Government customs on the value of the contents of the packages, before delivery can be effected:

	Charges to collect.
Way-bill No. 235—W. S. Clements, Colon, 1 box, *ex Advance*: July 6, 1908	$1.00
Way-bill No. 239—Jos. T. Dempsey, Cristobal, 1 box cloth, *ex Allianca*; July 15, 1908	1.00
Way-bill No. 247—Maj. E. T. Wilson, Cristobal, 1 box powder, *ex Advance*: August 4, 1908	1.00
Way-bill No. 205—A. R. Dametrius, Ancon, 1 package, *ex Advance*: April 20, 1908	1.00
Way-bill No. 229—M. M. Barrett (or Barnett), Cristobal, 1 package motrr parts, *ex Allianca*: June 19, 1908	2.85
Way-bill No. 235—Fernicr Montero, Panama, 2 cases instrument boxes, *ex Advance*: July 6, 1908	3.50
Way-bill No. 247—W. G. Edmund, (or Edmonds, Empire, 1 bale trunk, *ex Advance*: August 4, 1908	3.00
Way-bill No. 249—Wm. Bennett, Pedro Miguel, 1 box musical instruments, *ex Allianca*: August 9, 1908	1.00
Way-bill No. 227—John H. Dunn, Culebra, 1 box seeds, *ex Panama*; June 14, 1908	1.00
Way-bill No. 249—Rev. H. B. Bryan, Ancon, 1 box books, *ex Allianca*: August 9, 1908	1.00
Way-bill No. 249—W. B. Casey, Empire, 1 case dishes, *ex Allianca*: August 9, 1908	3 00
Way-bill No. 245—L. N. Vacher Pedro Miguel, 1 box piano, *ex Colon*: July 29, 1908	12.20
Way-bill No. 251—John R. Corcoran, Colon, 2 crates bicycle, 1 case oil stoves, 1 case cobbler sets, 1 case shoe dressing, *ex Finance*: August 14, 1908	3 15
Way-bill No. 249—C. K. Lucas, Cristobal, 1 case china, *ex Allianca*: August 9, 1908	3.00
Way-bill No. 195—W. (or J.) R. McCann, Culebra, 1 package cement, *ex Advance*; March 25, 1908	1.00
Way-bill No. 153—H. A. Yierman, Gorgona, 1 package, *ex Finance*; December 26, 1907	1.00
Way-bill No. 203—J. E. Johnson, Culebra or La Boca, 1 box tobacco, *ex Esperanza*: April 13, 1908	1.00
Way-bill No. 187—C. G. Letts, Colon, 1 package, *ex Panama*: March 2, 1908	1.00
Way-bill No. 153—G. H. Beldon, Cristobal, 1 package books, *ex Finance*: December 26, 1907	3.25
Way-bill No. 205—R. B. Smith, Cristobal, 1 package rubber goods, *ex Advance*: April 20, 1908	1.00
Way-bill No. 207—Louis Betz, Cristobal, 1 box personal effects, *ex Panama*: April 24, 1908	1.00
Way-bill No. 89—J. H. Higgins, Cristobal, 2 cases picture machinery, *ex Colon*: June 29, 1907	3.00

Misdirected Letters.

Division of Dead Letters.
Ancon, C. Z., August 26, 1908.

The following insufficiently addressed letters, originating in the United States and its possessions, have been received in the office of the Director of Posts, and may be secured on request of addressee:

Allen, Charles
Barth, G. H.
Baybum, Harry
Bell, Mrs. Frank M.
Boettner, John, Jr.
Bumham, Mrs. Alice
Bunton, E. P.
Bynoe, Andrew J.
Carmichael, L. C.
Crandall, A. L.
Curry, J. E.
David, Joseph
Downs, William
Doyle, Mrs. James
Dryden, Geo. A.
Glendenning, Thomas T.
Griley, Tadd C.
Haines, A. L.
Hynicka, Lemual K
Jamieson, Mrs. J.
Jervey, Major
Johnston, J. T.
Jones, Chas A.
Lacy, R A.
McClellan, Albert J.
McConoughy, H. A.
McCusty, William
McGuiness, William J.
McKaig, James
Michelhaugh, Bernard—2.
Morse, C. K.
Owen, Mr. & Mrs. Charles
Porter, Felix F.
Randall, Charles W
Snyder, Charles Ovid
Spinks, Mrs. James
Stevenson, Grover
Swartz, Miss Annabell
Taber, L. A.—2.
Vincent, Emanuel
Weiser, Wm.
Yeiser, Carl J

COMMISSARY DEPARTMENT.

COMMISSARY PRICES

For week beginning August 25:

FRESH MEATS, POULTRY AND COLD MEATS.

		Price.
Beef—Sirloin roast	per lb	30
Rump roast	per lb	30
Porterhouse	per lb	30
Rib-roast, short cut (not under 3½ pounds)	per lb	24
Rib-roast, second cut (not under 3 lbs)		20
Chuck-roast	per lb	15
Soup	per lb	9
Stew	per lb	12
Corned	per lb	12, 14, 16
Suet	per lb	4
Steaks—Sirloin	per lb	30
Porterhouse	per lb	30
Rump	per lb	30
Tenderloin	per lb	30
Round	per lb	24
Veal—Cutlets	per lb	24
Short-cut chops	per lb	24
Loin	per lb	23
Entire forequarters (15 to 20 lbs)	per lb	11
For stewing	per lb	11
Mutton—Entire forequarters, (not under 10 lbs)	per lb	9
Short-cut chops	per lb	20
Leg (8 to 10 lbs)	per lb	15
Lamb—For stewing	per lb	10
Entire forequarters	per lb	10
Chops	per lb	30
Leg (6 to 8 lbs)	per lb	28
Pork—Cuts	per lb	20
Livers—Beef	per lb	11
Calf	each	60
Sausage—Pork	per lb	16
Bologna	per lb	15
Lieberwurst	per lb	15
Sweet bread—Veal	each	1.20
Beef	per lb	25
Pigs' tongues (salted)	per lb	15
Ox tongues	each	90
Fowls, medium and large	each, $1.00 and	1.25
Ducks, fatted (fancy)	each	1.10
Suckling pigs	each	4.90
Turkeys	per lb	30
Squabs	each	45
Eggs (fresh)	per dozen	32
Capons	each	2.40
Broilers	each	70
Bacon—Strips	per lb	23
English, breakfast, sliced	per lb	§26
Ham—Sugar-cured, sliced	per lb	§25
One-half, for boiling	per lb	§20
Westphalia	per lb	45
Ferris	per lb	19
Beef, salt, family	per lb	16
Salt Pork	per lb	13

DAIRY PRODUCTS.

Butter, prints, prime quality	per lb	33
Cheese—Cream, Phila	each	22
Neufchatel	each	6
Young America	per lb	22
Swiss	per lb	33
Gouda	per lb	34
Edam	each	1.05
Camembert	per lb	28
McLaren's	per jar	15
Pinxter's	per tin	22
Buttermilk	bottle	15

FRUITS AND VEGETABLES.

White potatoes	per lb	3½
Cabbage	per lb	4
Onions	per lb	3½
Corn	dozen	25
Sweet potatoes	per lb	2½
Yams	per lb	3½
Turnips	per lb	6
Beets	per lb	6
Leeks	bunch	10

§ Sold only from cold-storage and not from Commissaries

LEGAL NOTICE.

United States of America Canal Zone. } In the First Judicial Circuit.

George Blake, Jamaican, died intestate July 15, 1907, leaving an estate, consisting of three houses in Pedro Miguel. The claimants for the estate have not proved that they are the legitimate heirs of the decedent, and the Collector of Revenues has filed a petition for escheat under Sections 779-781 of the Code of Civil Procedure.

Notice is hereby given to all concerned to appear at the court house in Ancon on October 5, 1908, at 9 o'clock a. m., to establish their claims to the said estate, or to show cause why the same should not escheat to the Canal Zone.

WALTER EMERY,
Circuit Court Clerk.

CANAL DIRECTORY.

ISTHMIAN CANAL COMMISSION.

Lieut.-Col. Geo. W. Goethals, U. S. A., Culebra.

Lieut.-Col. H. F. Hodges, U. S. A., (vice Jackson Smith, effective September 15, 1908), Culebra.

Maj. D. D. Gaillard, U. S. A., Empire.

Maj. Wm. L. Sibert, U. S. A., Gatun.

Civil Engineer H. H. Rousseau, U. S. N., Culebra.

Mr. Jo C. S. Blackburn, Ancon.

Col. W. C. Gorgas, U. S. A., Ancon.

Mr. Jackson Smith, (resigned, effective September 15, 1908).

Mr. Joseph Bucklin Bishop,
Secretary, Ancon.

DEPARTMENTS.

Construction and Engineering.

Headquarters, Culebra.

Lieut.-Col. Geo. W. Goethals, Chairman and Chief Engineer.

M. B. DePutron, Assistant to the Chairman.
W. H. May, Secretary to the Chairman.
C. A. McIlvaine, Chief Clerk.
A. B. Nichols, Office Engineer.
Caleb M. Saville, Assistant Engineer.

Lieut.-Col. H. F. Hodges, Assistant Chief Engineer.

C. C. Carlson, Secretary.
Edward Schildhauer, Electrical and Mechanical Engineer.
L. D. Cornish, H. F. Tucker, Henry Goldmark and David Molitor, Designing Engineers.

Civil Engineer H. H. Rousseau.

J. C. Parsons, Secretary.

Central Division.

Headquarters, Empire.

Maj. D. D. Gaillard, Division Engineer.

Earl A. Bronk, Chief Clerk.
Louis K. Rourke, Assistant Division Engineer.
A. S. Zinn, Resident Engineer.
Mark W. Tenny, Assistant Engineer.
R. W. Hebard, Assistant Engineer.
W. L. Thompson, Assistant Engineer
Geo. H. Ruggles, Assistant Engineer.

Atlantic Division.

Headquarters, Gatun.

Maj. W. L. Sibert, Division Engineer.

R. M. Sands, Chief Clerk.
Maj. Chester Harding, U. S. A., Assistant Division Engineer.
Maj. Edgar Jadwin, U. S. A., Resident Engineer.
Maj. J. C. Jervey, U. S. A., Assistant Engineer.
Capt. G. M. Hoffman, U. S. A., Assistant Engineer.
Capt. Horton W. Stickle, U. S. A., Assistant Engineer.
R. M. Smith, Assistant Engineer.
L. G. Thom, Assistant Engineer.

Pacific Division.

Headquarters, Corozal.

Mr. S. B. Williamson, Acting Division Engineer.

E. A. LeMay, Chief Clerk.
W. G. Comber, Resident Engineer.
G. B. Strickler, Resident Engineer.
Wm. F. M. Acheson, Assistant Engineer.

Mechanical Division.

Headquarters, Culebra.

Mr. Geo. D. Brooke, Superintendent of Motive Power and Machinery.

F. W. Doty, Chief Clerk.
Earl J. Banta, Mechanical Engineer.
A. L. Robinson, Electrical Engineer.

Division of Meteorology & River Hydraulics

Headquarters, Ancon.

Mr. R. M. Arango, Division Engineer.

D. W. MacCormack, Chief Clerk.

Division of Material and Supplies.

(TO BE ABOLISHED SEPTEMBER 1, 1908.)

Headquarters, Cristobal.

Mr. W. G. Tubby, Chief of Division.

Max Dyer, Chief Clerk.

Quartermaster's Department.

Headquarters, Culebra.

Maj. C. A. Devol, U. S. A., Chief Quartermaster.

C. H. Mann, Chief Clerk.
Lieut. R. E. Wood, U. S. A., Assistant Chief Quartermaster.

Subsistence Department.

Headquarters, Culebra.

Maj. Eugene T. Wilson, U. S. A., Subsistence Officer.

W. F. Shipley, Chief Clerk

Civil Administration.

Headquarters, Ancon.

Mr. Jo C. S. Blackburn, Head of the Department.

H. D. Reed, Executive Secretary, Ancon.
G. A. Ninas, Chief Clerk, Ancon.
Tom M. Cooke, Chief, Division of Posts, Customs and Revenues, Ancon.
Herman A. Gudger, Deputy Collector, Ancon.
E. Lewis Baker, Deputy Collector, Cristobal.
George M. Shontz, Prosecuting Attorney, Ancon.
George R. Shanton, Chief of Police, Ancon.
D. E. McDonald, Chief Clerk.
C. E. Weidman, Chief, Fire Department, Cristobal.
Geo. L. Campen, Superintendent of Public Works, Ancon.
C. R. Sargent, Chief Clerk.
J. J. Reidy, Assistant Superintendent of Public Works, Cristobal.
David C. O'Connor, Superintendent of Schools, Ancon.

Canal Zone Judiciary.

Headquarters, Ancon.

Supreme Court—Dr. F. Mutis Durán, Chief Justice.

Walter Emery, Clerk, Ancon.
H. A. Gudger, Associate Justice, Empire.
Lorin C. Collins, Associate Justice, Cristobal.
Circuit Court, First Circuit—Dr. F. Mutis Durán, Judge, Ancon.
Walter Emery, Circuit Court Clerk, Ancon.
Circuit Court, Second Circuit—H. A. Gudger, Judge, Empire.
Elbert M. Goolsby, Circuit Court Clerk, Empire.
Circuit Court, Third Circuit—Lorin C. Collins, Judge, Cristobal.
Nelson R. Johnson, Circuit Court Clerk, Cristobal.
M. C. Kerdell, Senior District Judge, Cristobal.
S. E. Blackburn, District Judge, Ancon.
Edgar S. Garrison, District Judge, Empire.
J. B. March, District Judge, Gorgona.
Thomas E. Brown, Jr., District Judge, Cristobal.

Department of Law.

Headquarters, Washington, D. C.,

Richard Reid Rogers, General Counsel, Washington, D. C.

George M. Shontz, Attorney for Isthmian Canal Commission and Panama Railroad Company, Ancon.
George H. Bartholomew, Assistant Attorney for Isthmian Canal Commission and Panama Railroad Company, Ancon.
Inocencio Galindo, Legal Adviser to the Isthmian Canal Commission, Ancon.

Department of Sanitation.

Headquarters, Ancon.

Col. W. C. Gorgas, Chief Sanitary Officer.

Maj. C. C. McCulloch, Jr., U. S. A., Executive Officer.
Harry E. Bovay, Chief Clerk.

H. R. Carter, Director of Hospitals, Ancon.
Surgeon, J. C. Perry, P. H. and M. H. S., Chief Quarantine Officer, Ancon.
Maj. John L. Phillips, U. S. A., Superintendent Ancon Hospital, Ancon.
Capt. Alexander Murray, U. S. A., Assistant to Superintendent.
J. F. Leys, U. S. N., Superintendent, Colon Hospital, Colon.
Capt. Robt. E. Noble, U. S. A., General Inspector, Ancon.
Surgeon Claude C. Pierce, P. H. and M. H. S. Quarantine Officer, Colon.
Dr. Fleetwood Gruver, P. H. and M. H. S., Quarantine Officer, Panama.
Dr. John H. Purnell, Health Officer, Panama.
Dr. M. E. Connor, Health Officer, Colon.
Joseph A. LePrince, Chief Sanitary Inspector, Ancon.

Disbursements.

Headquarters, Empire.

Edward J. Williams, Disbursing Officer.

Wm. M. Wood, Assistant Disbursing Officer.

Examiner of Accounts.

Headquarters, Empire.

W. W. Warwick, Empire.

W. D. Mabry, Chief Clerk.

Panama Railroad Company.

Headquarters, Colon.

H. J. Slifer, Assistant to the President, and General Manager, Colon.

W. G. Tucker, Secretary, Colon.

Purchasing Department.

Headquarters, Washington, D. C.,

Capt. F. C. Boggs, U. S. A., General Purchasing Officer.

C. E. Dole, Chief Clerk.

F. C. Nordsick, Assistant Purchasing Agent, 24 State street, New York City.
S. E. Redfern, Assistant Purchasing Agent, Custom House, New Orleans, La.
W. G. Tubby, Purchasing Agent on the Isthmus, Cristobal, Canal Zone.

MOVEMENT OF OCEAN VESSELS.

The following is a list of the sailings of the Panama Railroad Steamship Company, of the Royal Mail Steam Packet Company, of the Hamburg-American Line, and of the United Fruit Company's Line, the Panama Railroad Company's dates being subject to change:

FROM NEW YORK TO COLON.

Advance	P. R. R.	Saturday	Aug. 22
Tagus	R.-M.	Saturday	Aug. 22
Allianca	P. R. R.	Thursday	Aug. 27
Prinz Joachim	H.-A.	Saturday	Aug. 29
Finance	P. R. R.	Tuesday	Sept. 1
Esperanza	P. R. R.	Saturday	Sept. 5
Magdalena	R.-M.	Saturday	Sept. 5
Colon	P. R. R.	Thursday	Sept. 10
Pr. Aug. Wilhelm	H.-A.	Saturday	Sept. 12
Advance	P. R. R.	Tuesday	Sept. 15
Orinoco	R.-M.	Saturday	Sept. 19
Allianca	P. R. R.	Monday	Sept. 21
Finance	P. R. R.	Saturday	Sept. 26
Prinz Joachim	H.-A.	Saturday	Sept. 26
Panama	P. R. R.	Thursday	Oct. 1
Atrato	R.-M.	Saturday	Oct. 3
Colon	P. R. R.	Tuesday	Oct. 6

All the steamers of the Hamburg-American and Royal Mail lines call at Kingston enroute to Colon.

FROM COLON TO NEW YORK.

Colon	P. R. R.	Sunday	Aug. 30
Pr. Aug. Wilhelm	H.-A.	Tuesday	Sept. 1
Advance	P. R. R.	Friday	Sept. 4
Orinoco	R.-M.	Tuesday	Sept. 8
Allianca	P. R. R.	Wednesday	Sept. 9
Finance	P. R. R.	Monday	Sept. 14
Prinz Joachim	H.-A.	Tuesday	Sept. 15
Esperanza	P. R. R.	Friday	Sept. 18
Atrato	R.-M.	Tuesday	Sept. 22
Colon	P. R. R.	Wednesday	Sept. 23
Advance	P. R. R.	Monday	Sept. 28
Pr. Aug. Wilhelm	H.-A.	Tuesday	Sept. 29
Allianca	P. R. R.	Saturday	Oct. 3
Clyde	R.-M.	Tuesday	Oct. 6
Finance	P. R. R.	Thursday	Oct. 8
Panama	P. R. R.	Tuesday	Oct. 13
Prinz Joachim	H.-A.	Tuesday	Oct. 13
Colon	P. R. R.	Monday	Oct. 19
Tagus	R.-M.	Tuesday	Oct. 20

FROM NEW ORLEANS TO COLON.

Cartago	U.F.C.	Saturday	Aug. 22
Parismina	U.F.C.	Saturday	Aug. 29
Ellis	U.F.C.	Saturday	Sept. 5
Cartago	U.F.C.	Saturday	Sept. 12
Harry T. Inge	U.F.C.	Saturday	Sept. 19
Ellis	U.F.C.	Saturday	Sept. 26

FROM COLON TO NEW ORLEANS.

Cartago	U.F.C.	Tuesday	Sept. 1
Parismina	U.F.C.	Tuesday	Sept. 8
Ellis	U.F.C.	Tuesday	Sept. 15
Cartago	U.F.C.	Tuesday	Sept. 22
Harry T. Inge	U.F.C.	Tuesday	Sept. 29

FROM COLON TO BARBADOS, CALLING AT TRINIDAD.

Tagus	R.-M.	Tuesday	Sept. 1
Magdalena	R.-M.	Tuesday	Sept. 15
Orinoco	R.-M.	Tuesday	Sept. 29

The Panama railroad steamships sail at 3 p. m. from dock at Cristobal direct to New York.

The Prinz steamers of the Hamburg-American line sail from Colon at 1 p. m. via Kingston, Jamaica, for New York.

All Royal Mail steamers mentioned above leave early in the morning from Colon via Kingston, Jamaica, for New York. All mail and passengers should be on board early on day of sailing.

The steamers of the United Fruit Company's line sail from New Orleans at 11 a. m., and from Colon at 1.30 p. m., via Port Limon, for New Orleans. In addition to the above, the United Fruit Company dispatches a steamer about every ten days from Colon, via Bocas del Toro, for New Orleans.

Sailings of the French line (Cie. Générale Transatlantique) for Venezuelan ports, Martinique and Guadeloupe on the 3d and 20th of each month.

UNIVERSITY OF FLORIDA
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